Socio-Economic Development Of Jammu & Kashmir

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Preface

Jammu and Kashmir, though a backward State of Indian Union, has a vast potential for socio-economic development. Its natural beauty, rich flora and fauna, forest wealth, centuries of hereditary craftsmanship and the unparallel culture of hospitality, tolerance and secular outlook are some of the critical factors which possess tremendous potential for growth and development in the State. The prospects of socio-economic development have brightened further by the will of the people and the commitment of the government to inject acceleration in the rate of growth and development.

Like other states, Jammu & Kashmir has also adopted planning as an instrument of socio-economic change. The quality of life and the levels of living have registered improvement owing to the land reforms and the package of new agricultural practices adopted by the government. Similar efforts have also been made in industry, cottage crafts and tourism which have raised the level of per capita income during the last two decades.

Inspite of the efforts made by the government, the growth and development have been both slow and lop-sided; the gap between rich and poor is widening which is germinating the seeds of economic and social tensions. The factors for such a state of affairs have been faulty planning, absence of direction in policy formulation and implementation, excessive reliance on central aid and subsidy and an inappropriate fiscal and economic policy to create its own infrastructure for sustained socio-economic development.

All these problems have been analysed in depth in this book. It is expected to be a pacesetter for making other such attempts

to suggest suitable solution to the problems highlighted in this book.

The delayed publication, though making some statistical information a little old, has not in any way reduce the utility of this book. This will prove useful to government, researchers and students offering courses on J & K economy, history and sociology.

We are thankful to the publishers for undertaking the publication of this book.

N.S. GUPTA
N.C. PRABHAKAR

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Over View

"If there is heaven on earth, it is this, it is this, it is this."

(Emperor Jehangir)*

On account of its magnificient, matchless, unique and unimaginable natural beauties in the form of exotic landscape, verdant meadows, enchanting vistas, sparkling and shimmering snow streams, azure blue and placid lakes, fantastic glades, murmuring brooks, wonderful waterfalls, fascinating rivers, bubbling glaciers, rich alluvial soil, lofty crags, towering snow-capped mountains, graceful chinar trees, flower slopes, grassy 'maidans', charming snow falls, rich winter, rich fauna and flora, ancient monuments, clusters of ancient ruins, marvellous palaces, distinguished art galleries, novel Buddhist paintings, age-old monasteries, temples like prominent world renowned Buddhist monasteries, temples of global fame, crimson stretches of saffron fields, rich heritage, vivid cultural life and the traditional hospitality of charming Kashmiris, Dogras and Ladakhis, the State of Jammu and Kashmir is acclaimed round the globe as the crown of India. Its unlimited and varied tourist attractions have the potential to meet the tastes of all types of foreign and domestic tourists, be he a simple or sophisticated one. Above, all, this is the one place where one can have

* A celebrated Persian couplet about Kashmir which is said to have been sung by Emperor Jehangir in praise of the beauty of Kashmir.

TABLE 1.1

Jammu and Kashmir State in Indian Economy

Sl. No.	Item	Unit	Period	J&K	India
1.	Area	'000 Sq. Km	1971	222	3288
2.	Population	Lakhs	,,	46.2	54795
3.	Growth rate of population	%age	1961-71	30	25
4.	Estimated population	Lakhs	1977	52	6203
5.	Density population	Persons per Sq. Km	1971	46	178
6.	Literacy %age	%age	,,	19	30
7.	Total workers	Lakhs	,,	13.7	1803.7
8.	Percentage of workers to total workers	%age	,,	29.7	32.9
9.	Agriculture labour to total workers	,,	,,	3	26
10.	Total reporting area	Lakh hectare	1975-76	24.2	3001.1

11.	Net area sown to total reporting area	% age	1975-76	28.7	47
12.	Net area irrigated to net sown area	,,	,,	44	25
13.	Gross irrigated area to gross cropped	,,	1974-75	39.6	25.4
			1975-76	95.4	61.9
14.	Area irrigated by canals	,,	,,	1.0	26.7
15.	Area irrigated by wells	,,	,,	3.6	8.2
16.	Area irrigated by other sources	,,	,,	1043.9	120833.4
17.	Production of foodgrains	'000 tons	1976-77	13.6	20.1
18.	Fertilizer consumed per hectare of cropped area	Kgs	1972	42.85	3533.38
19.	Total livestock	Lakhs	1976-77	93	20982
20.	Installed capacity	M.W.	,,	309	89184
21.	Power generated	MKWH	1975-76	58	N.A.
22.	Per capita power consumption	KWH			

TABLE 1.1—Concld.

Sl. No.	Item	Unit	Period	J&K	India
23.	No. of villages inhabited	%age	1971	6.5	535.9
24.	Villages electrified to total No. of villages	%age	1977	35.2	35.1
25.	Road length per 100 Sq. Kms of area	Kms.	31-3-1975	6	36
26.	Goods vehicles per lakh of population	Nos.	31-3-1976	75	70
27.	No. of post offices	Nos.	31-3-1977	1185	120999
28.	Telephone Exchanges	Nos.	-do-	53	5819
29.	Output	Rs. in crore	1975-76	39.1	29866.4

Source : Government of Jammu and Kashmir Digest of Statistics.

unspoiled, unpolluted and refreshing air, stupendous sceneries and healthy atmosphere to recuperate his mind, body and soul.

1. Topography

The State of Jammu and Kashmir is the northernmost State of the country. It is bounded in the north-east by China, in the north-west by Afghanistan and in the West by Pakistan. The southern boundary is contiguous with the State of Punjab and Himachal Pradesh. In view of its location it has a vital strategic importance.

Being one of the largest States of India, it lies between 32.17° North to 36.58° North Latitude and 73.26° East to 80.30° East Longitude.

2. Area

According to Census of 1981, the State extends over an area of 2,22,236 Square Kilometres, including 1,20,849 Square Kilometres which is under the unlawful occupation of Pakistan and China. This leaves an area of 1,01,387 Square Kilometres on this side of the Line of Actual Control. It will not be out of place to point out here that 59,146 Square Kilometres or 58.34 per cent is occupied by Leh and Kargil which is mostly all bare rock and desert. Forests also covers an area of 21,000 Square Kilometres; consequently very limited area is available for cultivation.

3. Climate and Rainfall

On average, the annual rainfall of the State is 43″ ranging between 45″ in the valley, 53″ in Jammu division and 2″ in Ladakh district. The State enjoys a wide range of altitudinal variations, resulting in wide climatic variations. The temperature in some areas in Jammu division rises as high as 120°F. On the other hand, in Kashmir Valley, the maximum temperature rarely goes above 95°F.

4. Rivers, Peaks and Passes

The State is served by two major Rivers Jehlum and Chenab. Jehlum originates from the Verinag spring, joins Wullar Lake and covers a distance of 200 Kms from Khanabal to Baramulla and later enters West Pakistan. The River slopes gently and is navigable.

TABLE 1.2

Important Peaks/Passes

Peaks/Passes	Height (in Mtrs.)	District
Godwin Austin*	8611	Gilgit Ladakh
Gasharbrun*	8066	Ladakh
Mashasbrun*	7821	,,
Tutakuti	4743	Poonch
Nanga Parbat*	8126	Chilas Gilgit
Harasnash*	7397	Gilgit Ladakh
Ridden peak*	8068	Ladakh
Broad peak*	8047	,,
Saserla	5328	,,
Karakolam pass	5575	,,
Khardung La	5602	,,
Tsaka La	4724	,,
Lanak La	5486	,,
Chorbata*	5000	,,
Pensihal	4410	,,
Banihal	2832	Anantnag
Pirpanjal	3494	Poonch Anantnag
Zojila	3529	Srinagar Ladakh
Buril	4199	Ladakh-Gilgit
Babusar	4173	Chilas

*These are on the other side of ceasefire line and are at present under occupation of Pakistan.

The Chenab River originates from southern sides of Pir Panjal and flows through Jammu and beyond Akhnoor it enters Pakistan.

The Ravi is the river of Punjab which leaves Himalayas at Basohli (Jammu and Kashmir) and passes close to Kathua-Madhopur where it enters the Punjab plain towards Pakistan. The other branch of Ravi is Ujh. Ujh comes from Ram Kot side and passing through Kathua area enters Pakistan via Shankergarh Tehsil.

The Tawi flows out from Sewaj-dhar near Bhaderwah and enters Ramnagar hills. It flows through Chenani area, Udhampur and round the city of Jammu.

5. Natural Division

The state is divided into five natural divisions, namely :

(a) Indus Valley Tract, having snow-capped and high mountains rising to over 20,000 ft. above the sea level extending to the whole of the district of Ladakh;

(b) Jehlum Valley of Kashmir Valley Region, comprising three districts of the Valley bisected by the river Jehlum. On the other side of the mountains is the Kishen-Ganga Valley from Gurez to Karnah and thence meeting the river Jehlum at Domel;

(c) Chenab Valley Tract, comprising precipitous mountain areas lying to the south of Pir Panchal range, extending to the district of Doda and parts of Udhampur;

(d) Mountainous area lying between the Jehlum and the Chenab covering Poonch and Rajouri districts;

(e) Area between Ravi and Chenab river, extending from the south-eastern border with the Punjab to Akhnoor tehsil. This belt covers Kandi area of Jammu region.

Administrative Set up

Administratively the State is divided into two divisions—Jammu and Kashmir. Each of these divisions is headed by the Divisional Commissioner.

These divisions are divided into fourteen districts, six in Jammu division and eight in Kashmir division which are given as under :

Jammu Division

1. Jammu
2. Doda
3. Udhampur
4. Kathua
5. Poonch
6. Rajouri

Kashmir Division

7. Baramulla
8. Srinagar
9. Anantnag
10. Badgam
11. Pulwama
12. Kupwara
13. Leh
14. Kargil

On the top in the district there is the Deputy Commissioner. He is also designated as the District Development Commissioner. He is the overall incharge of law and order, revenue and administration and development in the District. He is assisted by Assistant Commissioners and other District Officers who look after their respective departments.

Districtwise Analysis

Jammu district is administratively divided into 4 tehsils and 11 blocks namely :

Tehsils : Akhnoor, Jammu, Ranbir Singh Pura, Samba.
Blocks : Akhnoor, Purmandal, Bishnah, Bhalval, Dhansal, Marh, Khour, Ranbir Singh Pura, Samba, Satwari, Vijaypur.

Satwari block is the last to have been created and it came into being on 2nd October, 1979. There are 1090 inhabited villages, 198 panchayats and 9 towns in the District. Out of 11 blocks, Akhnoor is an Intensive Rural Development Block, Vijaypur and Samba are the Ravi-Tawi Command Area Development project blocks, the remaining 8 blocks are looked after by the Community Development and National Extension Services.

Udhampur district has been divided into 4 tehsils and seven blocks (Community Development Blocks) namely Udhampur, Chenani, Ramnagar, Majalata, Reasi, Pouni and Mahore. Recently four new blocks Arnas, Gool, Panchari and Dudu Basantgarh have been created out of existing ones.

Kathua district has been divided in 4 tehsils and 5 blocks namely, Billawar, Basohli, Bani, Kathua and Hiranagar.

Out of 5 blocks the first 3 are Intensive Rural Development blocks. The remaining two blocks are looked after by the Ravi-Tawi Command Area Development Project. The district is divided into 26 Land Reforms Circles and has 115 Panchayats. There are 586 villages and 6 towns.

Doda district has been divided into 4 tehsils namely Doda, Kishtwar, Bhaderwah and Ramban. It has 8 blocks having 132 Panchayats.

Poonch district was divided into 5 tehsils namely, Rajouri, Mendhar, Haveli and Nowshera from administrative point of view and known as biggest district of the State, but in 1966 Poonch has been bifurcated into two separate districts of Poonch and Rajouri. Now Rajouri district has 3 blocks namely Rajouri, Budal, Nowshera having 77 Panchayats. Now Poonch has 5 blocks namely Poonch, Surankot, Mendhar, Balakote and Mandi.

Srinagar district is administratively divided into 5 tehsils of Srinagar, Ganderbal, Badgam, Beerwah and Chadoura. These five tehsils have been sub-divided into 8 blocks namely

Srinagar, Ganderbal, Chadoura, Badgam, Bagati Kanipora, Kangan, Narbal and Beerwah. Further these constituents blocks are comprising 749 villages.

Baramulla district for administrative purpose has been divided into 9 tehsils and 14 blocks. The district consists of 1032 villages of which 1008 are inhabited, 15 are un-inhabited and 9 un-administered. Among the tehsil Handwara with 183 villages is the largest tehsil of the district followed by Baramulla and Sopore. Karnah having 49 villages is the smallest tehsil of the District.

Anantnag district except for the detachment of the old Srinagar tehsil to form the nucleus of the Srinagar district, Anantnag district has suffered many changes in its boundaries. It has 5 tehsils and 13 blocks consisting of 275 Panchayats. Recently, Pulwama district has been created with a view to accelerating the pace of progress.

It will not be out of place to point out here that the districts of Srinagar, Baramulla and Anantnag have been bifurcated into two districts each; viz. Srinagar and Badgam; Baramulla and Kupwara; Anantnag and Pulwama. As a result there has been a certain adjustment in respect of geographical, administration and population distribution. Consequently, we are not discussing Kupwara, Pulwama and Badgam as a separate district.

Ladakh district forming the northernmost district of the State has 3 tehsils—Leh, Kargil and Zanaskar. It is consisting of 10 blocks and 72 Panchayats.

Recently Kargil a new district has been created with a view to increase the pace of economic development and social change.

Single Line Administration

Single Line Administration as it is called, is an unique innovation introduced by Sher-i-Kashmir Sheikh Mohammad Abdullah former Chief Minister to ensure involvement of maximum number of people in the development activities. In the words of Late Chief Minister :

> "The introduction of the Single Line Administration was reflective of keenness of the Government to decentralise authority and ensure maximum involvement of the people in development tasks."

The experiment of Single Line Aministration has reduced redtape, which had badly eaten into the vitals of our State administration. As a sequel, this has helped in speeding up the development pace in the State.

To make the experiment of Single Line Administration success, Government have framed District Development Boards. The Boards have been constituted without any party prejudice. The Boards comprise MLAs, MLCs, important public figures of all shades of opinion and officers of the district concerned. The Board assess and fix up priorities for development of various regions in the district. To expedite the balanced development of the State, more powers have been transferred to district development officers.

Following the decision to introduce a system of single-line administration in the districts with the object of decentralizing authority and planning to the lowest level, the State Government embarked upon a novel practice of shifting the headquarters of the Government, by rotation, to all the Districts of the State. The decision, as the Chief Minister, Sheikh Mohammad Abdullah explained, was "motivated by the desire to take the Government to the people, instead of people coming to the Government to seek redressal of their grievances".

The decision to shift the headquarters of the government temporarily to districts was announced by the Chief Minister, Sheikh Mohammad Abdullah at a mammoth public meeting at Bishnah near Jammu on November 20, 1976. Doda, headquarters of the farflung and backward district of Doda—170 Kilometres north-east of Jammu selected to be the first district headquarter where the Government moved from December 8, 1976 to December 12, 1976. This was quite a new experience for the State and besides the Chief Minister, Cabinet Ministers, Ministers of State, Secretaries to Government, Heads of Departments and other top functionaries of the Government converged on Doda on December 8, 1976 to begin an in-depth

and detailed study of the socio-economic problems of the district, and initiate action on various schemes and projects in consultation with the people, which might change the very face of this backward district.

The Chief Minister inaugurated the first meeting of the District Development Board Doda, on December 9, 1976 in the presence of a distinguished gathering including all the ministers, publicmen and prominent citizens and outlined the tasks of the members of the Board. He also undertook a tour of the district to explain the new set up to the people.

The shifting of the Government, naturally, aroused considerable interest at the State and national level. A group of senior correspondents were present at Doda to watch the functioning of the Government.

This move has helped in creating direct and greater rapport between people and administration. It has enabled the administration to appreciate the urges of the people and to grasp the problems of a particular area in proper perspective.

The new system has opened avenues for direct dialogue between the officials and legislators and prominent leaders of the area. The multi-party deliberations with Government on people's problems have started bearing fruit. On the economic front, it has helped in the balanced development of the State. On the political side, it has involved the opposition in the State's strides towards development. The administration is now purely a non-politicalized institutional affairs.

Economic Trend

Planned development with the objective of growth of economy, removal of poverty and achievement of self-reliance began in the State of Jammu and Kashmir alongwith that of the rest of the country. In spite of financial constraints and several Indo-Pak conflicts fought on the soil of the State, considerable progress has been made; looking back to last three decades of planning, one finds that a transformation has taken place and firm foundation laid of a developing economy.

Our Domestic Product at constant prices of 1970-71 has nearly doubled from Rs. 275 crore in 1973-74 to Rs. 417 crore in 1982-83. The per capita income at the same prices which had shown sluggish movement from Rs. 548 in 1970-71 made a quick growth from Rs. 559 in 1973-74 to Rs. 673 in 1982-83. The annual plan allocation which was Rs. 4800 lakh in 1974-75 rose to Rs. 18500 lakh during 1983-84. Revenue receipts moved from Rs. 123 crore to Rs. 353 crore during the same period. The index of agricultural production has moved from 104 in 1973-74 to 131 in 1982-83. The production of foodgrains including pulses has gone up by about one-third from 99.71 lakh quintals in 1973-74 to 126.09 lakh quintals in 1982-83. The yield rates of rice, maize and wheat have risen from 19.40, 11.82 and 8.48 quintals per hectare to 20.94, 14.91 and 10.69 quintals per hectare. The export of fruits has more than doubled from 1973-74 base level of 16.89 lakh quintals to 44.61 quintals in 1983-84. The value of forest products has risen from Rs. 21.73 crore to Rs. 107.69 crore. Road transport has been taken to almost all important villages and our road length now is over 10,000 Kms (maintained by various Central and State organisations). The number of vehicles has gone up two and a half times from 0.20 lakh in 1974-75 to 0.46 lakh in 1982-83. The installed generating capacity has moved up by over 126 MWs from 82.87 MWs in 1973-74 to 209 MWs in 1982-83. 81 per cent of the villages stood electrified ending 1982-83.

Industrial activity has been intensified and besides several medium scale units which have come up recently, the number of small scale units registered with the DIC's has multiplied five times from 2203 to 12902 during 1973-74 to 1982-83. The number of khadi and village units too has doubled from 489 to 874. Handicrafts the traditional industry in the State has touched a production level of Rs. 81.37 crore against Rs. 20 crore earlier and the employment level of 1.65 lakhs against 0.80 lakh in 1973-74. Diversification of industries has been both in respect of product as also areawise. There has been a shift from agro and forest based industries to metallic and mineral based products and the concentration of units in Jammu and Srinagar districts has been broken to a great extent. Tourism has

made a considerable improvement and the number of tourists has gone up from less than two lakhs in 1973 to over six lakhs in 1982. Literacy level has moved from 18.58 per cent in 1971 to 26.67 per cent in 1981. The enrolment ratio in the primary classes has moved from 58 to 88 during 1974-84. The scheduled castes and gujjars and bakerwals have improved their enrolment from 0.45 lakh to 0.70 lakh from 1973-74 to 1982-83 and from 0.14 lakh to 0.45 lakh 1973-74 to 1981-82 respectively. The number of medical institutions of all types has gone up from 1262 to 1885 during the same period. The credit death rate has fallen from 11.2 for trinium 1973-75 to 9.3 in the trinium of 1979-81 and continues to be considerably lower than the national level death rate which was 12.7 during 1979-81. Water supply has been provided to 41 per cent of the villages accommodating about 48 per cent of the rural population while the urban areas are almost all covered and supplies are being augmented in all of them.

2

Population

The position of Jammu and Kashmir as having a persistent increase in the population is correlated with geographical characteristic of the State. The State has been designed by nature like a crown to decorate the physical personality of our country.

Jammu and Kashmir is one of the sparsely populated areas in the country. In terms of area it is the sixth largest state occupying 6.76 per cent of country's total area. But in respect of population its position is sixteenth with its population of 46,16,632 (according to census of 1971). It constitutes only 0.84 per cent of the total population of the country.

The State of Jammu and Kashmir stood 14th in order of rank in 1951 with 0 99 per cent of population in India. This percentage went down to 0.81 per cent in 1961 and again has faced a meagre rise upto .84 per cent in 1971. Table 2.1 reveals the position of Jammu and Kashmir State as sixteenth and fifteenth during 1971 and 1961 respectively.

Table 2.2 shows that population of Jammu and Kashmir State is continuously increasing. In the initial period of present century the pace of population growth was very slow but after 1951 it starts rising rapidly. The increase in population in the decade 1901-11 was 1.53 lakhs and in the succeeding decade also it increased with a small percentage. It was to the tune of 7.16 per cent in 1911. In 1921 decade the population increased with a lower percentage than the previous

decade. The decade 1951-61 showed a rise of 3.07 lakhs which was double the rise in the beginning of the present century.

TABLE 2.1

Percentage share of each state to total population (1951-71)

State	1951	1961	1971
Andhra Pradesh	8.62	8.20	7.94
Assam	2.28	2.51	2.79
Bihar	10.74	10.58	10.28
Gujarat	4.51	4.70	4.87
Haryana	1.57	1.79	1.83
Himachal Pradesh	0.66	0.64	0.69
J & K	0.99	0.81	0.84
Kerala	0.53	0.86	3.90
Madhya Pradesh	7.23	7.37	7.60
Maharashtra	8.87	9.01	9.20
Manipur	0.16	0.18	0.20
Meghalaya	0.03	0.18	0.18
Mysore	5.38	5.37	5.35
Nagaland	0.06	0.08	0.09
Orissa	4.46	4.00	4.00
Punjab	2.51	2.54	2.47
Rajasthan	0.45	4.59	4.70
Tamil Nadu	8.34	7.67	7.52
Tripura	0.18	0.26	0.28
Uttar Pradesh	17.51	16.80	16.12
West Bengal	7.29	7.95	6.09

Source : Census of India 1971, Part IIA(i), p. 45.

TABLE 2.2

Decade variation in population of Jammu and Kashmir State (Since 1901)

Year	Population	Percentage decade variation
1901	2139362	—
1911	2292535	+7.16
1921	2425359	5.75
1931	2670208	10.14
1941	2946728	10.36
1951	3253852	10.42
1961	3560976	9.44
1971	4616632	29.65
1981	5987389	29.69

Source : Digest of Statistics, J & K Government.

Table 2.3 makes it clear that in the census year of 1971 the population of the State was 46,16,632. The province of Kashmir contributed more population than the average of the two provinces and its population stood at 25.41 lakhs. Anantnag district in this province was one of the thickly populated, the total population has been estimated at 8,32,280. The Ladakh district in this province has the lowest population.

The Jammu province has a population little less than Kashmir province. The total population in this province stood at 20.76 lakhs. The district of Jammu was densely populated like the districts of Kashmir province (except the Ladakh district). The total population of the district was estimated at 7.32 lakhs. The other districts of this province were neither heavily populated like districts of Srinagar, Anantnag and Jammu nor have so meagre a population as that of Ladakh district. The Poonch district was the least populated in the Jammu province having a population of 1,70,767.

TABLE 2.3

Population as per census 1971

State/Province/District	Persons	Males	Females
Jammu & Kashmir State	4616632	2458315	2158317
Kashmir Province	2540992	1371038	1169954
Jammu Province	2075640	1087277	988368
Anantnag district	832280	450353	381927
Srinagar district	827697	447508	380189
Baramulla district	775724	419862	355862
Ladakh district	105291	53315	51976
Doda district	342220	181424	160796
Udhampur district	338846	177596	161250
Jammu district	731743	381158	250605
Kathua district	274671	142989	151682
Rajouri district	217373	114380	102993
Poonch district	170787	89750	81037

Source : Census of India 1971, Series S, Jammu & Kashmir, Part II-A.

Table 2.3 also shows the sexwise distribution of population. Out of total population of the State as mentioned above 24,58,375 were males and 21,58,317 were females showing a clear dominance of males.

In the Kashmir province the males surpassed females by about two lakhs. In Ladakh district the difference between male and female population was very meagre. But in other districts of Kashmir province the population was evenly divided between the two sexes.

In Jammu province also males exceeded the females and the number of males over females was highest in Jammu district.

TABLE 2.4

Population as per census of 1981

S. No. State/District	Population	Males	Females
1. Jammu & Kashmir	5987389	3164660	2822729
2. Anantnag district	656351	347706	308645
3. Pulwama district	404078	213093	190985
4. Srinagar district	708328	378189	330139
5. Badgam district	367262	195395	171867
6. Baramulla district	670142	358293	311849
7. Kupwara district	328743	176909	151834
8. Leh district	68380	36248	32132
9. Kargil district	65992	35609	30383
10. Jammu district	943395	491972	451423
11. Udhampur district	453636	237963	215673
12. Doda district	425262	223362	201900
13. Kathua district	369123	192570	176553
14. Rajouri district	302500	158679	143821
15. Poonch district	224197	118672	105525

Source : Census, 1981.

Density of Population

Table 2.5 makes it obvious that density of population in our State is less than the density of population of the country. In 1961 the density was 26. Srinagar district has the highest density of 275 persons per Km. Next were Jammu with a density of 231 and Anantnag with a density of 155. Doda

district with a density of 29 persons occupies the lowest position in 1971.

TABLE 2.5

Density of population in Jammu and Kashmir State

State/District	Area in Kilometres	Density of population	
		1961	1971
Jammu & Kashmir	222360	26	N.A.
Anantnag	5382.0	120	155
Srinagar	3013.0	205	275
Baramulla	74580	92	104
Ladakh	958760	1	N.A.
Doda	116910	24	29
Udhampur	45490	57	74
Jammu	3265.0	160	231
Kathua	26510	78	104
Rajouri	26810	66	81
Poonch	1658.0	87	103

Note 1. Area of Jammu and Kashmir State is based on provisional geographical area figures applied by Surveyor General of India.

Note 2. The area of Ladakh district includes 78932 Kms under illegal occupation of Pakistan and 5180 Kms illegally handed over by Pakistan to China. Also includes 37555 Kms under illegal occupation of China.

Note 3. N.A.—not available.

Source : Census of India, Jammu and Kashmir, 1971, Part II-A.

Density has gone up in all the districts of the State. It went up in Jammu district to 231 against 160 in 1961 thus surpassing all other districts in the region. Baramulla with 104 against 92 persons in 1961 has recorded the lowest increase. The increase in case of Kathua and Udhampur districts has only statistical value in view of the fact that both these districts are thinly populated and the rise in their densities is not of much consequence.

TABLE 2.6

Density of population (1981 Census)

S.No.	District/State	Population per Sq. Km.	Number of households per Sq. Km.
1.	All India	216	31.79
2.	Jammu & Kashmir	59	9.27
3.	Anantnag district	165	24.57
4.	Pulwama district	289	41.76
5.	Srinagar district	318	46.33
6.	Badgam district	268	39.75
7.	Baramulla district	146	21.03
8.	Kupwara district	138	21.47
9.	Leh district	2*	0.33*
10.	Kargil district	5	0.80
11.	Jammu district	305	52.63
12.	Udhampur district	100	17.47
13.	Doda district	36	5.71
14.	Kathua district	139	23.19
15.	Rajouri district	115	18.48
16.	Poonch district	134	20.65

Source : Census, 1981.

*Density has been worked out on comparable area.

Jammu, Anantnag and Srinagar districts constitute the zone of highest density in the State. This is due to variety of factors such as level of land, fertile character of the soil, moderate climate and availability of adequate irrigational facilities besides higher levels of economic development.

The second belt consists of the districts of Baramulla of Kashmir province and Kathua, Rajouri and Poonch of Jammu province the average density of which varies between 81 of Rajouri district to 104 of Baramulla and Kathua districts. This belt is partly hilly and partly plain and is not placed as advantageously as areas mentioned above.

The third zone comprises the remaining two districts of Udhampur and Doda. Ladakh district would have found a place in this zone but no data about density of this district is available. Because of poor soil, lack of irrigational facilities and other constraints this zone has shown the lowest density in the State.

Rural and Urban Population

Jammu and Kashmir is mainly an agriculturist state like that of the country. The rural population in this State is many times more than the urban population which is depicted in table 2.7. In the census report of 1901, 92.58 per cent of population of the State was residing in villages and the remaining 7.42 per cent in urban areas. The percentage of total population living in villages is declining from census to census. This does not indicate that population of urban areas is increasing; it only indicates the shift of the rural population to urban areas because of rapid development of industries which creates more employment opportunities. In 1951 about 85.95 per cent of population i.e. slightly more than 27 lakhs people were living in rural areas. This trend continued till the decade 1960-71 in which more than 37 lakhs people constituting 81 per cent of population belonged to rural areas. The percentage of rural population was larger in Kashmir province than Jammu province.

TABLE 2.7

Rural and urban population in State of Jammu & Kashmir

Year	Total	Rural	Percentage	Urban	Percentage
1901	213962	1980614	97.58	158748	7.42
1911	2292535	2024017	88.29	268518	11.71
1921	2424359	2156605	88.96	267754	11.04
1931	2670209	2352403	88.10	317806	11.90
1941	2946728	2560163	86.88	386565	13.12
1951	3253852	2796639	85.95	457213	14.05
1961	3560976	2967661	83.34	593315	16.66
1971	4616632	3758411	81.41	858221	18.59
1981	5987389	4726986	78.95	1260403	21.05

Source : Census of India, 1981, Part II (i), pp. 45 x 50.

Occupational Distribution

4.4 per cent was the share of trade and commerce, 3.25 per cent of transport and communications and 11.63 per cent of other services.

Sex Ratio

Sex ratio is one of the most important demographic characteristics of population study. Sex ratio is usually referred to as the number of females per thousand males.

It has already been stated that gross population of the State in the census year of 1971 stood at 46,16,632 out of which 24,58,315 belonged to masculine group and the rest 21,56,317 to feminine group. The sex ratio therefore, stands at 858 females for every 1000 of males and thus showing an excess of 122 of males against by 1000 of females. The same was the case with all the districts of Jammu and Kashmir.

It is clear from the table 2.8 that the sex ratio which existed in the State at 882 in 1901, dropped further to 865 in 1931, but thereafter an upward trend was maintained.

Forecast of Population

The forecast of population in the State has been made by perspective planning division of the Planning Department of the State government, on the basis of the assumed growth rates between the decades 1971-81, 1981-91 and 1991-2001. They have assumed the growth rate of 2.5 per cent in the decade 1971-81, 2 per cent in 1981-91 and 1.5 per cent in 1991-2001. On the basis of this assumption the total population of the State is expected to go up from 46.17 lakhs in 1971 to 57.73 lakhs in 1981, 69.27 lakhs in 1991 and 79.69 lakhs in 2001.

Table 2.9 shows that the net increase in the total population in the 3 decades will be as follows :

(i) 1971-81 ...11.56 lakhs
(ii) 1981-91 ...11.54 lakhs
(iii) 1991-2001 ...10.41 lakhs

TABLE 2.8

District-wise trend in sex rate (female per 1000 males)

State/District	1901	1911	1921	1931	1941	1951	1961	1971
Jammu & Kashmir State	882	876	870	865	869	873	878	878
Anantnag district	880	868	847	848	837	849	860	848
Srinagar district	880	866	855	834	837	843	848	850
Baramulla district	879	885	864	865	864	863	863	848
Ladakh district	996	997	1029	1022	1011	990	971	975
Doda district	908	906	907	901	909	904	901	886
Udhampur district	893	892	896	903	904	908	912	908
Jammu district	853	814	840	829	850	870	886	920
Kathua district	872	865	870	875	867	897	905	921
Rajouri district	893	900	909	900	922	911	900	900
Poonch district	895	927	896	900	909	905	902	903

Source : Census of India 1971, series 8, Jammu and Kashmir, Part-II A.

TABLE 2.9

State

Year	Total population in lakhs	Net increase in the decade in lakhs	Percentage increase in the decade	Growth rate in the decade
1971	46.17	—	—	—
1981	57.73	11.56	25.03	2.5
1991	69.27	11.54	19.99	2.0
2001	79.68	10.41	15.03	1.5

3

Social Beliefs and Customs

Jammu and Kashmir State is the home of various races and sects whose history goes back to thousands of years. Many are the strange and interesting customs and social usages prevailing among them and a detailed account of their history would fill a volume. We will discuss here briefly the caste system and social customs prevailing among the people of this part of the country.

The people of Kashmir valley are physically a fine stock, the men being tall and well built. Their features are well shaped and regular. Lovely and intelligent, they are full of fun and fond of amusement. The beauty of their womenfolk has been long cherished and much extolled. Describing the people of the Valley, Frederic Drew in his book, "The Jammu and Kashmir Territories" writes that "Kashmiri people are doubtless physically the finest of all the races that inhabit the territories we are dealing with, and I have no much hesitation in saying that in size and in features they are the finest race on the whole continent of India. Their physique, their character and their language are so marked as to produce a nationality different from all round, as distinct from their neighbours as their country is geographically separated."

The population of the valley can be broadly divided under two sects—Hindus and Muslims—according to religion. Hindus mostly brahmins, popularly called Kashmiri Pandits, from

a distinct class of their own and considered to be the purest specimen of the ancient Aryans settlers in the Valley. An overwhelming majority of the people in the valley professes the Muslim religion. The advent of Islam during the 13th and 14th centuries surely but slowly changed the social structure of the Kashmiris but they maintained their traditions of love and toleration. The Muslim population of the Valley is divided into Sunni and Shia sects, the former being in a preponderating majority.

Jammu the hilly tract extending to the plains of Punjab from the snowy mountains bounding the Kashmir Valley is the home of the Dogras, a hardy people divided into several castes and sects, both Hindu and Muslim. Belonging to the Aryan race, they speak the Dogri language, a mixture of Sanskrit, Punjabi and Persian words, deriving its origin from Sanskrit the Indo-Aryans group of languages.

The inhabitants of the region of the "Middle Mountains" are a virile and active people called Paharis. Hardy and of powerful frame, they lead a rough life, eking out subsistence by terrace cultivation on the slopes of the steep hills. The language they speak is a mixture of Hindi, Punjabi, Dogri and Sanskrit words.

The inhabitants of Dardistan in the North of the valley are broad shouldered, moderately stoutly built, well proportioned and active mountaineers. Baltistan, the region to the north-east of the Valley, is inhabited by patient, hard working Balties. Further to the east is the magic land of Ladakh, the home of the ancient Bhuttas. The staple food of the Ladakhis is Grim which is ground into flour and eaten mixed with tea and butter as a rough paste or in the form of bread. Though, majority of them profess the Buddhist faith, they are invariably vegetarian.

CASTE SYSTEM

Kashmir Province

With a few exceptions, the Hindu inhabitants of the Valley are Brahmins by caste and are commonly known as Pandits.

They "are a handsome race with fine, well cut features, small hands and feet and graceful figures". Kashmiri Pandits are divided into 133 exogenous gotras. Each member belonging to these gotras claims to be descendant of a Rishi, whose name the Gotra bears. In one Gotra, there may be many "Krams" or sub-divisions, for example Paldeo Gotra embraces families belonging to the following Krams or tribal sub-divisions : Sopuri, Pandit, Male, Pooj, Khar, Mirakhu, Kedelbaju, Bangru, Bakaya, Khasu, Kichlu, Misri, Khar and Man. Some of the leading most Krams in the State are : Tikku, Razdan, Kak, Munshi, Mathu, Kachru, Pandit, Sapru, Bhan, Zutshi, Raina, Dhar, Fotedar, Madan, Thusu, Wangru, Mujo, Hakhu and Dulu (Koul).

This community has further been divided into three classes : the priest class (Guru or Bachabat), the astrologer class (Jotshi) and the working class (Karkun). The majority of Pandits belong to the Karkun class and they usually eke out their living by serving the State administration, while Jotshi Pandits keep busy themselves in drawing up calendars and predicting future. Priest class who regard themselves as divine performs rites and religious ceremonies and generally do not intermarry with the other two classes.

Hindu population other than Kashmiri Pandits is very small and most of them are Bohras or Khatris, who are generally engaged in trade and shop-keeping. A very small number of Sikh population is also residing in the valley and most of them are Pandit converts.

Majority of population in the valley is muslim and majority of muslims in rural areas belong to the Shaikh sect which is further sub-divided into four important classes; the Pirzadas, Babas, the Rishis and the Mullahs. Pirzadas are believed to be descendants of zealous converts to Islam and consider themselves superior and equivalent to Sayyids and they intermarry with them. Babas and Rishis are not actually a form of a caste but the people belonging to these sects represent a class of people who are employed as attendants in Muslim shrines. Mullah is the name given to Muslim priests. Those Mullahs learned in law are designated as Maulvi, Qazi, Akhwund

or Mufti and those who have lower social position are known as Malas.

In a very limited number are also found Pathans and Mughals in certain areas of the valley but with the passage of time they are losing their identity and are being absorbed by the general population, although some still use the names of Khan and Sardar.

Like rest of Muslim population in India and world, Muslims in Kashmir too are divided into two sub-groups, Sunnis and Shias with Sunnis claiming majority.

Jammu Province

Those who live in the hilly tract which extend from the snowy mountains bounding the Kashmir valley in its south to the plains of Punjab are known as Dogras, a hardy, fearless and trustworthy people, divide into several castes and sects both Hindus and Muslims. Commenting on the socio-economic system of Jammu, the Census Commissioner of Jammu and Kashmir in his report on the Census 1911 has remarked that "the caste system in its truest sense exists only in the Duggar Illaqa where the influence of Brahmanism has always been the strongest and there the complete hierarchy of castes and sub-castes is met within its perfection. The people of this region speak Dogri language—a mixture of Sanskrit, Punjabi and Persian words.

All the four Vernas of the ancient period could be found in this region—the priestly Brahmin, the ruling and military Kshatriya, the trading Vaishya and the serving Shudras; and "within each of these classes there is a long range of divisions and sub-divisions which is made still more extensive by the tendency of people of these areas; as also of other parts of the State, to multiply these distinctions by means of geographic, linguistic, occupational and family name".

In the caste-hierarchy, Brahmin occupies the highest place who is believed to be pious and learned. Their main occupation and source of income is agriculture although a limited number of them attend to the religious calling also.

Next in order of caste hierarchy comes Dogra Rajputs. They are not very tall statured people—they average five feet five inches in height and even exceptionally they are seldom tall. In character they are "simple and child like". They cling to their prejudices and the clan spirit, so commonly found among the mountain fold throughout the world; they are also bound by the rules of the Biradari system.

They can be broadly divided into two main classes : the Mians and the working Rajputs. Mian Rajputs follow no trade, nor do they indulge in agricultural pursuits; they rather prefer service, either in military or in State Administration which does not involve manual work. On the other hand working Rajputs have taken to agriculture as their means of livelihood but as agriculturist they are not so successful as the older cultivating caste is.

After these two main castes there are some Khatris and Mahajans who form the backbone of trade and commerce in Jammu province. In comparison to Rajputs they are less good-looking and also less accustomed to hardships. But they are men of judgement, and in education, both men and women have made good progress.

Next come some castes whom Drew has bracketed together since they are nearly of equal rank. They include Nai and Jiur with some others.

Lastly there is a class of low caste Hindus mostly known as Harijans, which include Meghs, Chamars and Dooms. A substantial portion of the population of Jammu Province consists of these Harijans but unfortunately they have suffered numerous disabilities civic as well as religious at the hands of the high caste Hindus.

In the hilly areas of the region we find two other communities—Paharis and Gujjars. The former are hardy and of powerful frame, eke out their living mostly by terrace farming and animal husbandry. Gujjars are said to be Rajputs who migrated from Rajasthan and adopted Muslim faith. After Kashmiris and Dogras, they are the third largest community of the State. They lead semi-nomadic life and cattle rearing is their main occupation.

Social Customs and Ceremonies

Like rest of India, we have in our State beliefs and practices connected with birth, marriage and death though they differ in somes respect among Hindus and Muslims. Due to complete illiteracy and ignorance of the majority population of the State, these customs and traditions, in the past have acquired almost the force of law. "A man will go without meals, will involve himself in debts, make his condition miserable, but will not break his customs and traditions." We will describe here the main customs and religious and other ceremonies of Kashmiri Hindus, Kashmiri Muslims and Dogras belonging to Jammu Province.

Social Customs of Kashmiri Pandits

Among the Kashmiri Pandits, the birth of a son is considered as a matter of great joy and happiness. They believe that children are the joy of life, the fruit of good Karma and, the blessing of God. Sons are particularly auspicious and, therefore, greatly desired. It is believed that child birth causes pollution to the woman who delivers the child and to purify her and the house as a whole, a purification or Kahanetra ceremony is performed on the eleventh day after the child birth. The newly born child is also given name on this day.

The next important ceremony which falls in the life of a Hindu Kashmiri male child is the Hair cutting or Zare Kasei ceremony which is performed when the child attains the age of four or five years. On some auspicious day fixed by some religious priest, child's head is shaved for the first time : a Havana is performed and relatives and friends are served with a feast. No such ceremony is performed in case of female child.

The next most important religious ceremony performed by the Kashmiri Pandits before the child attains the age of 12 is commonly known as thread ceremony or *Yagne-opavit* and is known at *Mehkel* in the valley. The ceremony generally lasts

for three days but the important event known as *Yagneopavit* takes place on the last day when Havana is performed and at some auspicious time fixed by the Kul-Prohit, the child is made to wear a three-fold thread and Gayatri Mantra is also whispered into his ears which gives an indication of his becoming Brahmin. On this happy occasion a non-vegetarian lunch called Kosh-i-alhirm is served and thus this ceremony is concluded. Like hair-cutting ceremony this is also not performed in case of female child.

No important ceremony falls between the Yagneopavit and the time the child attains the age of marriage. Marriage according to Kashmiri Pandits is one of the most important events in the life of an individual; unless a man is married he will not be able legitimately to beget sons and thus ensures the continuance of the family progeny.

Marriage ceremony begins with the Garvai or House cleaning and is followed by Manzi-rat and Lagan ceremonies. On Manzirat, Hinna (Mehndi) is applied to both bride and bridegroom and neighbours and relatives, mostly females, are invited to dinner. Religious rites Devogin takes place next day in the house of bride and bridegroom.

On wedding day, the bridegroom "richly attired decked with jewels, "sets out to the bride's house in a boat or on a horse. The procession is well received and after performing some religious ceremonies Vyug and Durgapuja, meals are served to the bridegroom and party. After the feast is over, lagan ceremony takes place which is performed by the family priest. Bride and bridegroom, hand-in-hand walk seven times round a lighted fire, while the *prohit* continues reciting mantras.

Death ceremonies connected with the Kashmiri Pandits are mostly similar to those followed by Brahmins in the rest of the country. When death is imminent, the body of the dying person is placed on a kind of grass (Burb) which is spread over a clear spot and mantras and verses from the holy religious books are recited into the ears of dying man. Dead body then is given a bath and is covered with white sheet of cloth and placed on a wooden plank is taken to ceremonial ground. After performing some religious rites, the body is put on the pyre and is lit by the eldest son or some close relative of the deceased.

Mourning is observed for the next nine days and the sons, daughters and close relatives of deceased neither change cloth nor take meat. On eleventh day Shradh ceremony is performed and in the name of the deceased, priests are paid in cash and kind. Cooked rice with some vegetables is kept on the roof everyday throughout the year.

Other Beliefs

According to census (1961) village reports, oozing of water from boiled rice, barking of dog in weeping tone, crowing of cocks between dusk and midnight, sneezing by a person when another person is about to leave, passing by right hand side of a widow and a person carrying a bundle of wood, braying of donkey and hooting of an owl etc. are considered to be inauspicious. On the other hand sneezing at the time of sleep, spilling of country oil or meet the night soil carrier with his tools in the morning or passing by the right hand side of a pretty girl, cow, child or milk carrier while leaving for any work are thought to be auspicious.

Muslim Customs and Ceremonies

Much of the beliefs and practices connected with the birth of a muslim child are akin to those followed by Kashmiri Pandits. Those married couples who failed to have any issue after a pretty long period of marriage visit Shrines and go to Darvaishes and indulge in so many unscientific practices to beget a child. Mostly the first delivery after marriage takes place in the house of the wife's parents. Just after the birth of the child, Muslim religious priest Mulla is summoned who whispers Azan in the ears of the baby. Seventh day following the birth of the child is named as "Sunder day" on which child and mother are given hot water bath and name of the child is also announced. On this very day, close relatives and friends are also served with meals.

Major ceremony after birth of the male child is known as *Zarkasai* and is performed when the child crosses the age of six months. This ceremony is celebrated just to mark the first

hair-cutting of the child. Hair-cutting is done by the barber and relatives mostly females and neighbourers are invited to dinner.

Khutna or "circumcision" is the next important religious ceremony which is obligatory for every Muslim child and takes place when the child is six months old. Circumcision is performed by the barber and relatives and friends are entertained with meals etc.

There is no other ceremony worth mentioning which falls between the circumcision and the marriage of the Muslim youth. Muslims of Jammu and Kashmir like their counterparts in the country and in world prefer to marry in near relatives and after a suitable match is found, the ceremony of betrothal takes place. The bridegroom's father alongwith some other relatives and friends goes to the bride's house with some presents. They are well received and entertained with tea and sweets. Betrothal is then announced by the muslim priest. Muslim marriage is a contract which is written and exchanged between the two parties. Sometimes, on the betrothal ceremony, the contract is written and exchanged after getting the consent of both bride and bridegroom. It is known as Nikah.

Marriage ceremony starts with "MEHNDIRAT" where relatives and friends mostly females are invited to dinner and bride's hand and feet are dyed with 'Mehndi' (Hinna).

Next day, bridegroom alongwith his relatives and friends leave for bride's house. The marriage party is well received and bridegroom is taken to a well decorated hall and made to sit on a specially decorated cushion. Certain religious ceremonies and rites are then performed and after that the marriage party is served with sumptuous dinner which consists of variety of mutton and vegetable preparations. Party then returns home alongwith the bride who is usually carried in palanquin.

Last set of ceremonies are connected with the death, but in comparsion to Hindus, their rites and ceremonies are simple and less expensive. Muslims believe that if God (Allah) is remembered at the time of death, it gives spiritual relief. Following this belief, the senior member of the family ask the dying man to say Allah. Dead body is given hot bath and is wrapped

in white cloth known as Kaffan. The body is then placed in a wooden box (Tabut) which is readily available at the mosque and is then taken to graveyard. A grave is then dug in the graveyard and dead body is placed in that and covered with stones and clay. Lastly the priest leads the prayer and pray for the departed soul. On the 4th and 40th days after the death relatives, friends and muslim priest assemble and recite the holy Quran and pray for the deceased soul.

Dogras Customs and Ceremonies

Three districts of Jammu region, Jammu, Udhampur and Kathua are mostly inhabited by martial community known as Dogras who "have figured with some prominence in the history, politics, trade and military events of their region". Their geographical isolation permitted certain traditional practices to continue and led to the development of some customs unique to the Dogras community and of interest to those outside.

Major ceremonies which are performed in the lifetime of a man are generally the same among Dogras as in the rest of the country with certain unique variations.

Like the rest of the country, birth of a male child is celebrated with great joy and happiness and girls are "considered a misfortune and even today do not arouse the enthusiasm that the birth of a son does".

After birth of the child, purification ceremony takes place on 13th day when hot bath is given to the mother and the child and gangajal (Holy water of river Ganges) is sprinkled in and around the house.

Nam Sanskar (giving name to the newly born child) is the next ceremony and the alphabetical letter with which the name of the child is to begin is mostly given by the family priest after making astrological calculations but now-a-days in most of the advanced families, name to the baby is given by the parents themselves according to their own choice.

After birth, the second important ceremony is the *Mundan Sanskar*—the hair-cutting ceremony which is restricted to the male child only and takes place when the child is 3 to 7 years old. A barber is called to shave the head of the child and

certain religious ceremonies are performed. On this occasion, close relatives and friends are entertained with feasts. Some of the Dogra families perform this ceremony at the Mata Vaishnu Devi Temple.

Any time between 7 to 10 years of age, Dogra male child is expected to wear a sacred thread called Janeo. It is religious ceremony and by wearing this sacred thread, he is initiated to Hinduism. Mantras are read into the ear of the young child and the religious priest addresses the youngman to pursue the religious and moral precepts of Hinduism.

The next important ceremony which is celebrated with great pomp and show among Dogras is marriage which falls when Dogra child attains his youth. Among Dogras, marriage is considered necessary and a religious obligation. Generally initiative is taken by the boy's father and a marriage proposal is sent to the father of the girl through some middle-man. After both the parties reach an agreement, the start is made with Betrothal ceremony which is locally known as Tikka ceremony. On this occasion, bride's father present "Shagun" (some gifts) to the bridegroom and his parents. A Tikka is placed on the forehead of bridegroom declaring the official betrothal. On this occasion relatives and friends are served with sumptuous meals.

After consulting the family priests, marriage date is fixed which should normally not fall in the month of *Poh* (December) and *Chetra* (March) which are considered inauspicious.

On marriage day, the bridegroom in fine new dress and with his golden veil (Sehra) on the head, leaves for bride's house with his family members, relatives and friends, On arriving at bride's house, the procession is well received and immediately after reception, *Milni* ceremony takes place in which the close relatives of both sides embrace each other and exchange certain gifts. Specially prepared sumptuous meals are then served to the marriage party. Actual marriage ceremony takes place at some auspicious time which is fixed by the family priest. At that very time, *Lagan* ceremony is performed in which bride and bridegroom with their garments tied walk around the burning fire for seven times. The occasion is concluded with some other minor activities.

Death

As the death approaches, the dying man is stretched on the ground and Pandit is summoned to recite holy verses into the ear of the dying man. Immediately after the death the body of the deceased is given a bath and clothed in white shroud. It is then taken to funeral ground on a wooden plank. After some religious ceremonies, the dead body is put on the pyre and it is generally lit by the eldest son. On the fourth day the remains of the body are collected and mostly taken to Haridwar for emerging in the Ganges. On 11th or 13th day *Kirya* ceremony takes place in which Havana is performed and prayers are offered for the departed soul. Other functions performed in connection with the death are *Adh-Barkhi* and *Barkhi, Chubarsi* and *Shradhas.*

All other beliefs and practices which are prevalent in the northern India as well as in the valley are strictly observed by the Dogras too.

4

Cutural Heritage

The State of Jammu and Kashmir which forms an integral part of India, had been part of Ashoka's far-flung empire as far back as 250 B.C.[1] But it came into prominence during the reign of Kanishka as a centre of Buddhism. For many centuries it was ruled by the Scythian Hindu Princes who were succeeded by Tatars. In the fourteenth century, it was ruled by Shams-ud-Din. During the reign of Sultan Zain-ul-Abidin the art of weaving Kashmiri Shawls was introduced[2] and in 1586, it was conquered by great Mughal Emperor Akbar. His successor Jahangir made many expeditions from 1605 to 1622 to the State. Mughal Emperor Aurangzeb visited it once in 1664. In 1739, Nadir Shah, the Persian invader, annexed the State and it passed into the hands of Ahmad Shah Abdali, the first Durrani Chief in 1748. In 1819, Maharaja Ranjit Singh's general, Misr Chand, defeated the Pathan governor Jabbar Khan at Shupian and annexed the State. In 1846, on the close of the first Sikh war, the State was sold by Britishers to Maharaja Gulab Singh. Maharaja Ranbir Singh succeeded him who ruled it from 1857 to 1885. Thereafter, Maharaja Pratap Singh reigned very efficiently and died in 1925. He was succeeded by his nephew Maharaja Hari Singh.

The Pakistani tribesmen backed by regular armed forces of Pakistan invaded the State on 22nd October, 1947.[3] The State suffered heavily. After the accession of the State with India, it

became an integral part of the Indian Union with special status granted to it under article 370 of the Indian Constitution.

Culturally the State has been one of the biggest seats of Indian culture and learning throughout its history for about 2,000 years. The State has produced great philosophers, grammarians, historians and astronomers and poets who shined like luminaries.

The State gave birth to the philosophy of Shaivism, characterised by the depth of thought and originality which is now one of the highly developed schools of Indian Philosophy.

Apart from the great Sanskrit grammarian Patanjali, grammarians like Chandra, Kshira Swami, Vamana and Kayyata who wrote the *Laghuvriti* also flourished in the State. Two famous writers on Science and Ayurveda, viz. Charaka and Narhari also belonged to the State.

Kashmiris have evinced special interest in the study of Astrology. The works of Bhaskaracharya, Aryabhatta and Rana Kantha are considered authorities on the subject.

In philosophy, the names of Baba Daud Khaki, Khwaja Habib Ullah Navshahri and Mirza Akmal Uddin Kamil are significant. The huge work of the last named *Bahar-ul-Urfon* which was written in reply to that of Maulana Jalal-ud-Din Rumi, is in four volumes and comprises 80,000 verses.

Persian poetry also flourished in the State. Numerous poets have made a significant contribution. Sarfi, Mullah Ashraf, Baha-ud-Din Mattu, Maulana Mazhari, Mullah Tayib and Mulla Farooqi deserve reference in any history of Kashmiri literature. Mohammad Tahir Gani, who wrote fine Persian poetry and munshi Bhavani Das Kachru, whose new style of *Bahr-i-Tavil* in Persian poetry is held in great esteem. Pandit Taba Ram Turki 'Betab' (1840), whose *Jang Nama* stands at par with *Shah Nama* of Firdausi and Pandit Raj Kaur Arzbeghi *Dairi* (1887) whose poetry is second only to that of Ghani from literary point of view were also Kashmiris.

Kashmiris also evinced interest in Arabic during medieval times and wrote about 25 books mostly dealing with religious customs and practices among Muslims. Notable among Arabic writers is Mulla Mohsin Khushu who lived in the reign of Aurangzeb.

The State can also claim the distinction of being the only region of the Indian Sub-continent which possesses an uninterrupted series of a written record of history. The oldest book about the subject is *Rajtarangini* of the Kashmiri poet Kalhana. It comprises eight cantos of Sanskrit verses giving the history of the various dynasties which ruled the State from the earliest period down to the time of the author, who started his work in 1145.

The culture of State is said to have been influenced by many civilizations, like the Roman, the Greek, the Persian and the Indian. The contribution made by the State to Indian culture has been considerable. From ancient times the State has been the centre of art, literature and scholarship which in the ancient times was visited frequently by foreign scholars, who used to pour into the State to imbibe knowledge in Buddhism and Sanskrit literature in particular.

The State museums at Srinagar and Jammu city house the ancient manuscripts, paintings, pieces of art and precious antiques. The Monastries at Leh and Kargil also house the priceless ancient Buddhist antiques. The Dogra Art Gallery at Jammu houses a large number of Basohli paintings which have attained international fame.

Ancient Monuments and Ruins

The State abounds in remains of antiquity. These ancient monuments which are of great archaeological interest disclose the existence of a lost civilization. By looking to the massive stones fixed in the buildings, it appears that science had been proficient in ancient times. Some prominent ancient monuments and ruins worth mentioning are :

1. Hari Parbat at Srinagar.
2. Shah-i-Hamdan Mosque at Srinagar.
3. Pathar Masjid at Srinagar.
4. Jama Masjid at Srinagar.
5. Harwan near Srinagar.
6. Pari Mahal at Srinagar.
7. Shankercharya Temple at Srinagar.

8. Miracle Stone at Bijbehara.
9. Rozabal Tomb at Khanyar.
10. Ruins at Pampore.
11. Ruins at Bijbehara.
12. Tomb of Zain-ul-Abidin's mother at Srinagar.
13. Hari Parbat Fort at Srinagar.
14. Temple of Sudh Mahadev near Patnitop in Jammu region.
15. Lord Shiva Temple at Purmandal.
16. Tangmarg Shrine of Baba Rishi.
17. Buniyar and Narayanthal Temples.
18. Twelve distinguished Ladakhi Monasteries.[4]

Places of Pilgrimage

Besides acclaimed as a Tourist's Paradise, Jammu and Kashmir has also been known for places of pilgrimages since ages past. Hence, this beautiful State besides attracting lakhs of Indian and foreign tourists also attracts lakhs of pilgrims from every corner of the country. Though there are hundreds of places of pilgrimage spread over throughout the State, most important among them are Vaishnodevi Shrine in Jammu region and Amarnathji and Hazratbal Shrines in Kashmir region. Each of them has been separately discussed in the following lines :

Vaishnodevi Shrine : In the district of Udhampur in Jammu region at a height of 6,000 feet (1,615 metres) is the famous shrine of Vaishnodevi on the triple peaked Trikuta, about 58 Kms to the north of Jammu city. There are also many self formed images of Gods inside 100 feet (30 metres) long cave. Pilgrims are prohibited to take meat here. Lakhs of pilgrims visit this shrine between the months of September and December and thereafter throughout the year every year to have 'darshan' of the Goddess who is enshrined at the extreme end of the long cave. A small stream, Charan Ganga, flows from under the image and the devotees make their way through it to the shrine where the Yatra continues all the year around. The annual fair on Navratri attracts devotees of the Devi in lakhs from distant corners of the country.

Amarnathji Shrine : Amarnathji shrine is situated at an altitude of 13,000 feet and at a distance of 142 Kms from Srinagar in a long glacial gorge high among the eastern mountains of Himalayas. The cave enshrines a naturally formed ice-lingam, emblem of lord Shiva. The ice-lingam presents an interesting phenomenon. It waxes and wanes with the moon and according to common belief it attain its maximum height on full moon night in the month of Shravan (July-September). This is where Hindus believe Lord Shiva explained the secret of salvation to his consort Parvati on a full moon night. Each year on the day of Sawan-Purnimashi in the month of Shravan (July to September) when the moon is full, thousands of Hindu pilgrims gather before the Amarnathji shrine in the picturesque Lidder Valley in Kashmir to offer their prayers to Lord Shiva. Besides the Lingam, there are two more ice formations in the Shrine near Ramkund. These are taken to be the symbols of Parvati, Lord Shiva's consort and Ganesh, his son.[5]

Hazratbal Shrine : The famous shrine of Hazratbal situated on the bank of the Dal Lake has acquired special sanctity for its being the repository of a sacred hair relic of prophet Mohammad. There stands today at Hazratbal a white marble building of the shrine which is almost a replica of the Masjid-Nabvi at Madina in Saudi Arabia. Besides usually Friday congregations, four festivals are held here annually during which the holy relic is put up for *deedar* to hundreds of thousands of devout Muslims.

Variety of Food

In cooking too, Kashmiri dishes are famous throughout the world and a tourist is wonderstruck as much by its dishes as by the supreme natural grandeur. A tourist may enjoy the following dishes[6] :

Non-Vegetarian dishes	*Vegetarian dishes*
1. Kabargah	1. Alloo with Matar
2. Roghan Josh	2. Alloo aur Kele Ki Bhujia
3. Qalia	3. Arvi Ke Patte.

Non-Vegetarian dishes	*Vegetarian dishes*
4. Qorma	4. Began.
5. Pasande	5. Chukandar
6. Shabdegh	6. Cut Chaman
7. Chops	7. Dum Aloo
8. Rista	8. Dum Karela
9. Kofta	9. Dum Loki
10. Dum Ran	10. Dum Parval
11. Tabakhmaz	11. Dum Ratalu
12. Abighosht	12. Dum Tinda
13. Shufta	13. Dum Zaminkand
14. Gushtaba	14. Khoya Matar
15. Gular Kabab	15. Lohbia
16. Shami Kabab	16. Khatti Bindi
17. Mutton Cutlets	17. Kathal-ke-Kabab
18. Keema	18. Arvi-ke-Kabab
19. Seekh Kabab	19. Ganth Gobhi
20. Kabab (Nargis)	20. Kaddu
21. Gurdey Kapura	21. Karamkalla
22. Kaleji	22. Kabuli Chana and Aloo
23. Bheja	23. Kachnar
24. Chuste	24. Kele Ke Dahi Bare
25. Dehi Bara	25. Besan Ke Karele
26. Khubani (Meat)	26. Palak
27. Biryani	27. Parwal Ke-Bhujja
28. Machhli Tali	28. Phool Gobhi
29. Murg Musallam &	29. Razmasha &
30. Murg Qallia, etc.	30. Saag of Sarson, Chana and Nari etc.

Wonderful Music

There are three distinct forms of music in the State namely, Sufiana Mausiqi (Traditional classical music) handed down to the present generation by old masters—Chhakri, Roef, Wanawun, etc. (folk music) and Ghajals, geets and choral songs (Modern light music).

Folk forms have remained the favourites of the masses.

Festivals, fairs, marriages, receptions each have a style to suit the occasions.

Roef, a form of folk music is also associated with festivals, social gatherings and marriages, etc. Both Wanawun and Roef have been sung by women through the ages although men also indulge in their presentation.

The sarang, one of the earliest miniature forms of Hindustani Sarangi is the only bow instrument with 3 to 12 strings. It provides the virility. It is one of the earlier types of instruments which travelled with the bards and minstrels from Afghanistan and joined the folk group of instruments in Kashmir. Kashmir has produced some of the most outstanding Rababis in Sona Ullah Bhat and Ahmad Kawadari who have become a legend.

Light music has had the shortest span of its life, about 10 years, and is in the youngest form. One of the earliest HMV discs was one cut by the Kashmiri musicians, Ghulam Nabi Dilsoz and Mahmud Shehri and broadcast over AIR Lahore. Later, Radio Kashmir opened the gates to the modern light music of Kashmir.

The Kashmiri ghazal has also undergone tremendous changes as far as its form is concerned. Earlier lyrics had a different rhyming scheme with the first line forming the refrain after every three hemistitches. Poets started following more and more the Urdu-Persian Ghazal forms. Such Ghazals were easy to set to music by singers. Lyrics of the old masters and contemporary poets have since been set to music by either the singers themselves or by specially arranged composers for broadcast over Radio Kashmir. The new forms of musical rendering has been introduced with the help of some imaginative Kashmiri poets by Radio Kashmir.[7]

Beautiful Lakes/Streams/Gardens

There are large number of Lakes/Streams and gardens throughout the State which have considerably enhanced the beauty of the State.

Luxurious Houseboats

Indeed houseboat is the unique and novel attraction of the State. It is a floating hotel on the water. The houseboats of Kashmir can often surpass even high class hotel in their elegance and style. They add to the beauty of Dal and Nagin lakes.

The Mughals introduced the houseboats but it was left to the Britishers to perfect these. The Britishers were attracted to them because of the Government's ban on acquisition of land by non-State subjects. Building houseboats, therefore, became an industry. The first houseboat, named 'Victory' was designed in 1888 by Mr. M.T. Kenhard. Later, others copied his design and now there are more than 500 houseboats in Kashmir valley. They are classified by the State's Department of Tourism under three different categories for tourists; Special class, First class and Economy class.

The upper class houseboats favourably compete with the best hotels. Like that of cottage industry these are also run by joint families who have a wide experience in catering to the varied menues of Indian, Persian and Western styles. Every houseboat has a paddle boat for crossing the river for the lake lines and an attached large covered service boat to function as the kitchen and the staff quarters. The unsurpassed charm of houseboats lies in the fact that tourist lives in an atmosphere of unassumed formalities and soothing traditions of Kashmiri hospitality.[8]

Romantic Shikaras

A tourist will never really know Srinagar until he takes a ride in a 'Shikara'—a Kashmir water taxi. The Shikara is a fascinating little craft—a happy blend of the practical and the romantic ideas. Many of the boats actually have inner spring mattresses for passengers to recline upon. These are proudly advertised by their owners as having 'full spring seats'. The heart-shaped paddle, dipped in and out of the water by colourfully dressed boatmen, the canopied top and the graceful curtains draping the side complete the romantic picture.

On the practical side, the Shikara is an inexpensive means of getting around the city in comfort.

While touring the city by Shikara, one can observe life on the banks and shores of the rivers and lakes as well as the life of the people who live on the water...the houseboat dwellers. One soon learns that much of Srinagar's activity transpires on its water ways.

Merchants in well-stocked shikaras endlessly cruise the houseboat moorings offering everything from toothpaste to leopard-skin coats. Similarly, a post office shikara complete with stamps, clerks, boatmen, letter box and scales will make it easy for a tourist to despatch his mail anywhere in this tiny world.

Pleasant Golfing

The "Queen of Hill Stations"—the Gulmarg in the State houses a natural World's highest, one of the best and beautiful 18-hole golf course. Nestling in the Himalayas on the eastern slope of the Peer Panjal range this 8,700 feet high golf at Gulmarg enjoys a breath-taking view of some of the most beautiful and unrivalled scenery to be found anywhere.

The plans for relaying the golf course to bring it upto international standard have been drawn up by M/s South Pacific Golf Pvt. Ltd., Melbourne, Australia, a firm headed by the distinguished and well-known golf champion Mr. Peter Thompson. In new scheme the present polo field and the area under fair-ways have been incorporated into the new design of the golf course. The present trees, greens and the fair-ways are all being realigned and remodelled. Twenty-seven tees, including 18 normal tees and 8 additional championship tees, one practice tees, 18 green mounts and traps are being constructed according to the new design.[9] Peter's suggestion is that the sheep must be kept out and be replaced by less scenic movers. And if this can be done, the fair-ways can be cut selectively, leaving the flowers to grow wild in the rough. These flowers a natural asset of the place will add the much needed colour and gaiety to the course making it perhaps the only one in the world where there will be flowers all the way.

Since some time past, most of the India's Golf Championships have been held on the Gulmarg Course regularly. Outstanding among them are : Nedou's Cup, Calcutta Challenge Trophy, Hill Vase Trophy, Robin Trophy and Kashmir festival Trophy etc. The manufacturers of Wills' Cigarette have been organising their 'Northern India Golf Championship' since 1976 every year here.

Fishing

One of the famous attractions of the tourists in the State is trout fishing—the principal attractions of the State trout fishing is its infinite variety and quality. Actually Kashmir valley is best suited for fishing. This is so because the valley is ringed by snow-clad mountains having large number of high altitude lakes, streams and rivers, full of fishes and a network of fishing rivulets full of brown and rainbow trouts.

Trout fishing is surely one of the most exciting and most rewarding sports available to all who come to the State. Now almost all the hill streams are full of trouts. In 1906 the biggest trout supplied for the Viceroy's camp weighed 12½ pounds and measured 27 inches in length and 18 inches in girth. More recently a record of 14 pounds has been registered.

There are some 300 miles of trout waters in the Valley ranging from an altitude of over 5,000 feet to 12,500 feet. All trout waters have their own typical characteristics and features. An angler has more than 60 boats at his disposal in the Kashmir Valley to choose.

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5

Agriculture

The importance that agriculture commands in the economy of Jammu and Kashmir can be judged from the fact that about 82 per cent of the State's population lives in rural areas whose primary occupation is agriculture and allied activities. About 37 per cent of the State's income is generated in this sector.[1] The economy of the State is deep-rooted in agriculture and it is the pivot around which all its economic activities revolve. Excessive dependence on agriculture and lack of diversified economic structure are the characteristic features of the economy of Jammu and Kashmir. These characteristics represent the relative backwardness of the State. Even the development of agriculture is hindered by the diverse physical and climatic conditions prevailing in major part of the State. In order to stand the vagaries of nature and to make full use of his uneconomic holdings, the farmer of the State has to put in persistent efforts to fight against heavy odds.

The pressure of population on land can be judged by the fact that the average cultivable area per head of agricultural population is as low as 0.78 acre. There is little scope for lowering the pressure of population on land because there are no immediate prospects to establish large scale industries which could divert a sizeable portion of the bulk of agricultural population towards industrial sector. The development of small-scale and cottage industries could only help the poor farmers by ensuring them an additional source of income. It can, therefore,

be rightly remarked that agriculture will continue to be the mainstay of the people of State for some time to come and, therefore, occupies an important place in so far as its contribution to the State economy is concerned.

Like rest of the country, the State of Jammu and Kashmir, recently, has initiated certain measures to improve the productivity of this sector. In those areas where supply of water is assured or those which receive sufficient rainfall, farmers have taken up new methods of cultivation using hybrid seeds and chemical fertilizers, though large scale mechanisation of agriculture including use of complex machinery could not make much headway due to State being mostly hilly and the smaller size of agricultural holdings.

Progress on agricultural front especially after the introduction of new agricultural strategy shows that the State has not witnessed yet any significant break-through in this regard. In comparison to some neighbouring States like Punjab and Haryana the performance of this sector in the State has been much below the expectations. But one cannot deny that this new strategy has created in our farmers fertilizer consciousness and has converted subsistence farming into a business proposition which has kindled new hopes and aspirations in the minds of agriculturists.

The size of holding in the State is extremely low and there is little scope for further extension of cultivation. Most of the holdings are exceedingly small, 46 per cent of them being of size not exceeding half a hectare, those below one hectare being 70 per cent and those below 2 hectares 87 per cent. Most of the area is single cropped and less than 37 per cent of its sown more than once. The size pattern of holding is given in Table 5.1.

It is, therefore, urgently necessary that "agriculture should be organised in such a manner that the limited land is able to yield the maximum through judicious application of modern technology adopted to local conditions".[2] Since agricultural sector in the State, by and large, is a single crop economy the only way to increase agricultural production is to increase the area under multiple cropping with more and more use of modern agricultural inputs and practices.

TABLE 5.1
Size Pattern of Holding

Size/Class	Number of holdings	Percentage of holdings	Cumulative percentage of holdings	Area held (hect).	Percentage of area held	Cumulative percentage area held
Below 0.5 hect.	472995	45.68	45.68	122879	11.93	11.93
0.5 to 1.0	253795	24.51	70.19	182054	17.68	29.61
1.0 to 2.0	175917	17.00	87.19	247015	23.99	53.60
2.0 to 3.0	73958	7.14	94.33	179334	17.42	71.02
3.0 to 4.0	29863	2.90	97.23	103157	10.02	81.04
4.0 to 5.0	14003	1.35	98.58	62799	6.10	87.14
5.0 to 7.5	10421	1.01	99.59	64924	6.31	93.45
7.5 to 10.0	2644	0.26	99.85	23026	2.24	95.69
10.0 to 20.0	1321	0.13	99.98	17774	1.73	97.42
20.0 to 30.0	208	0.02	100.00	5033	0.49	97.91
30.0 to 40.0	71	neg	neg	2585	0.25	98.16
40.0 to 50.0	27	neg	neg	1243	0.12	98.28
50.0 & above	153	neg	neg	17734	1.72	100.00
Total	1035376	100.00	100.00	1029557	100.00	100.00

(neg—negligible)

This section mainly deals with the agricultural development of the State in historical perspective. Our main emphasis will be to see the impact of new agricultural strategy on State's agricultural production and productivity.

Development before Independence

Very little record is available about the agricultural activities in the State before independence. Only authentic documents which throw some light on the condition of State agriculture are census and administrative reports.

The agrarian system prevalent before the introduction of land settlement in 1886 in the State, was feudal in nature. On food front, the position in the State had never been satisfactory and since long the State had been deficient in foodgrains even in normal years. Under Dogra rule effective measures were undertaken to increase agricultural production. The main aim of these measures was "to restore to some extent the equilibrium in the rural economy of Kashmir by giving priority to agriculture and increase food production procurement and the equitable distribution of food".[3] For the development of agriculture, the State established the Agriculture Department. Agricultural and horticultural experimental work and the demonstration of improved methods of cultivation of crops and fruit plants were important features of this Department. It also distributed improved variety of seeds, implements and gave technical advice to cultivators.[4] For production of better seeds through agricultural research, the department of agriculture had two experimental farms—The Partap Model Farm at Shalimar in Kashmir and the small farm at Gomanasa near Jammu. To educate farmers about the new techniques of production and to make them familiar with the new seed varieties, Agriculture Department used to organise District Agriculture Shows and annual exhibitions and commercial fertilizer and improved implements were kept in stock for sale to Zamindars.[5]

In spite of these efforts, the agriculture sector could not make any headway. Use of chemical fertilizers was absolutely nil, seeds used were of inferior quality and plant and crop diseases

were rampant in the State. Foodgrains deficiency continued in the State and imports of foodgrains was a regular feature.

The cropping pattern of the State was dominated by food cereals. Three main food crops, paddy, wheat and maize accounted for about three-fourth of the total cropped area in 1938-39. Percentage of irrigated area to total cropped area had stagnated at an average of 30 per cent upto late thirties.

From the above description of State's agriculture, one can say that prior to independence, State agriculture was entirely traditional in nature. Subsistence farming was in vogue and farmers were quite ignorant about the scientific methods of cultivation.

Post Independence

Though the State, like rest of India, got independence in 1947, but it was soon invaded by Pakistan in October, 1947. A sense of uncertainty prevailed in the State for about two to three years and the State's economy was completely shattered. At the time of independence, State was very much deficient in foodgrains, so the Grow More Food Campaign Programme was launched in 1948. Besides, steps were taken to increase the area under cultivation and the number and variety of crops raised on the land. About 23,000 acres (about 9,300 hectares) of culturable waste land was distributed among peasants in 1948-49 under the Grow More Food Campaign and in 1949-50 a further area of about 6,200 acres (2,500 hectares) was put at the disposal of the cultivators for the production of foodgrains. The cumulative effect of all these efforts resulted in an increase of nearly 200,000 maunds (about 75,000 quintals) in the annual production of foodgrains.

Another important step taken by the Government pertained to the introduction of Land Reforms through legislation.

But in spite of all these steps, the State continued to be deficient in food-grains after independence when the First Five Year Plan was launched in the State. The important reasons being, poor fertility of soil, occurrence of soil erosion, meagre irrigational facilities, right type of seed/fertilizers and uneconomic

holdings, crop diseases, primitive farming practices and excessive pressure on lands etc.

However, the progress of expenditure on Agriculture Development Plans is as shown in Table 5.2.

TABLE 5.2

Expenditure on Agricultural Development Plans

Plan/Year	Expenditure (Rs. in crore)
Ist Plan	0.15
2nd Plan	0.42
3rd Plan	1.70
Inter Plan	4.17
4th Plan	7.29
Total	13.73
5th Plan	8.10
1978-79	4.72
1979-80	7.62
1980-81	9.23
1981-82	12.03
Total	41.70
G. Total	55.43
1982-83 (Outlay)	13.84
6th Plan	69.42

The tempo of investment has gone up after the Fourth Plan and the present annual allocations are well above the total amount spent ending the 4th Plan.

Production

Table 5.3 depicts the production trends in major food crops, paddy, wheat, maize, bajra, other food cereals and total foodgrains taken together.

Since the last year of the Third Plan (1965-66) was abnormal on account of severe drought conditions, we would limit our analysis up to the year 1964-65. It will be adduced from the table 5.3 that production of three important food crops, paddy, wheat and maize went up substantially in the State during the period under study. As compared to base-year, production of rice had nearly doubled, that of wheat had risen by two and a half times and in case of maize the increase was little less than four times. In case of inferior cereals, production of bajra had tremendously fallen showing a shift towards production of superior food crops. Total foodgrains production had also more than doubled during 14 years. In 1951-52, total grain production in the State was 4267 thousand quintals consisting of 2288 thousand quintals of rice (53.6 per cent) 409 thousand quintals of wheat (9.6 per cent) 989 thousand quintals of maize (23.2 per cent) and 581 thousand quintals of other coarse cereals (13.8 per cent). By 1964-65 total foodgrain production rose to 9574 thousand quintals with a production of 4327 thousand quintals of rice (45.1 per cent), 1122 thousand quintals of maize (38.8 per cent) and 407 thousand quintals of other coarse grains (4.3 per cent). The State thus registered an annual growth rate of 8.8 per cent in foodgrains production while during the same period the country as a whole registered a growth rate of 5.13 per cent per annum.

With the passage of time, the share of rice to the total grain production had been steadily falling. From 54 per cent in 1951-52 it fell to 45 per cent in 1964-65, while percentage share of wheat and maize went up from 9.6 and 2.3 per cent to 11.7 and 3.9 per cent respectively during the same period. The share of other cereals had also fallen considerably from 13.8 per cent to 4.3 per cent.

Saffron is our very important cash crop. Expansion in the area as also intensive cultivation are resorted to increase

TABLE 5.3

Production of food cereals in Jammu and Kashmir from 1951-52 to 1965-66

(000 quintals)

Year	Rice	Wheat	Maize	Bajra	Other food cereals	Total food-grains
1	2	3	4	5	6	7
1951-52	2288	409	989	93	488	4267
1952-53	2652	531	1146	148	590	5067
1953-54	2563	569	2073	106	551	5862
1954-55	2952	633	1106	78	496	5265
1955-56	2777	766	1781	111	811	6246
1956-57	3017	788	1675	91	535	6101
1957-58	2294	713	1355	66	526	4954
1958-59	3263	903	2507	90	525	7288
1959-60	3132	996	2285	78	617	7108
1960-61	3525	943	2633	78	569	7748
1961-62	3563	930	2833	91	559	7976

TABLE 5.3– Contd.

1	2	3	4	5	6	7
1962-63	3641	1001	3189	124	540	8495
1963-64	3750	1022	2468	126	656	8022
1964-65	4327	1122	3718	153	254	9574
1965-66	2356	827	2165	37	215	5600
1973-74	4601	1609	3158	N.A.	603	9971
1977-78	5216	1859	3599	N.A.	538	11212
1982-83	5745	2262	4069	N.A.	633	12609

Source : Agriculture Department, J & K Government.

production. The cultivation of this crop has been extended to new and non-traditional areas. Multiplication of corns has been entrusted to K.D. Farm Badgam. Area brought under corns multiplication is shown below :-

Year	Area (kanals)
1978-79	18
1879-80	28
1980-81	48

In addition an area of 800 kanals was brought under saffron cultivation in village Badipur of tehsil Chadoura in 1980-81.

From the above figures one can safely say that the State's performance in agriculture sector was encouraging. The significance of this success is further enhanced due to the fact that this increase in agricultural production had taken place in the absence of New Agricultural Strategy.

Cropping Pattern

Total acreage under different food crops in the State from 1951-52 to 1965-66 is depicted in Table 5.4.

Area sown under three important food crops of the State had steadily risen during the period under study. In case of paddy and wheat the increase in area had been about 100 thousand and 140 thousand acres respectively but area under maize had risen to 629 thousand acres in 1965-66. While in the base-year, maximum area was under paddy cultivation in the final year of the Third Plan, maize had become the principal crop of the State. There had been an increase of about 450 thousand acres of land under total foodgrains whereas total cropped area during this period had risen by about 290 thousand acres. It clearly shows that there had been a marked shift in area towards foodgrain production and it had risen at the cost of other crops.

Inadequacy of cultivated area limits the scope for cultivation of commercial crops. Bulk of our area continues to be under

TABLE 5.4

Area sown under major food crops in Jammu and Kashmir from 1951-52 to 1965-66

('000 acres)

Year	Rice	Wheat	Maize	Bajra	Other food cereals	Total foodgrains
1951-52	465	289	391	46.0	104	1295
1952-53	475	290	414	50.0	109	1338
1953-54	466	312	419	44.0	153	1394
1954-55	487	325	424	45.0	99	1380
1955-56	485	371	502	47.0	61	1466
1656-57	527	373	521	44.0	65	1530
1957-58	523	387	527	39.0	68	1544
1958-59	522	392	519	49.0	96	1578
1959-60	533	416	512	49.0	100	1610
1960-61	560	425	534	44.0	71	1634
1961-62	542	417	571	46.0	89	1665
1962-63	562	425	618	61.0	72	1738
1963-64	558	427	593	62.0	N.A.	N.A.
1964-65	563	426	608	66.0	106	1769
1965-66	525	380	629	40.0	99	1673

Source : Digest of Statistics—1965-66 to 1973-74, J & K Government.

the cultivation of principal food cereals viz. rice, maize and wheat. Food being of primary importance, is first in the scheme of priorities for the proprietor cultivator and is sown in over 85 per cent of the cropped area with rice, wheat and maize claiming over 76 per cent pulses, five per cent bajra and barley over three per cent and other cereals and millets more than one per cent of the sown area. Less than 15 per cent of the sown area goes to all other crops. Inspite of high return from these commercial crops are not raised in preference to foodgrains but in exceptional cases. The important non-foodgrains crops are oil seeds occupying about five per cent area sown, with rape and mustard accounting for more than four per cent. Fruit is cultivated in about four per cent of the sown area and fodder crops on less than three per cent. The behaviour of the cropping pattern is shown in Table 5.5.

Change in the cropping pattern is evident but very small. The total area under foodgrains has gone up by 0.55 lakh hectares but the percentage of area under this group has fallen from 87.73 in 1973-74 to 85.43 in 1982-83. Extension of irrigation has enhanced the percentage of area under rice from 26 to 27. Wheat is stagnant at about 21 per cent and maize has fallen to 27 per cent from 29. Pulses and other cereals and millets have not changed their coverage much. Among non-foodgrain crops rape and mustard has improved its percentage from 4.06 to 4.69, fruit has doubled from two per cent to four per cent and fodder crops have gone up by about half a per cent. Saffron is the only other important crop which inspite of the small area of 3141 hectares has made great impact upon the life of its cultivation.

Rice account for 2.75 lakh hectares or 27 per cent of the sown area and 32 per cent of the area under foodgrains and is the most important crop in the State. The total area under this crop was 2.37 lakh hectares in 1973-74 and has been increasing. The area now at 2.72 lakh hectares has recorded increase of 16 per cent or 1.8 per cent per year. Two-third of the area is in Kashmir Division and the rest in Jammu Division. Ladakh and Kargil have no area under rice because of their short crop season. The whole rice area is irrigated. Production has gone up by nearly 11 lakh quintals from 46 lakh quintals in 1973-74 to

TABLE 5.5

Cropping pattern

Sl. No.	Crop	1973-74		1977-78		1982-83 (P)	
		Area sown	Percentage	Area sown	Percentage	Area sown	Percentage
1	2	3	4	5	6	7	8
1.	Rice	2.37	25.96	2.59	26.81	2.75	27.43
2.	Wheat	1.91	20.92	1.95	20.19	2.12	21.16
3.	Maize	2.66	29.13	2.74	28.37	2.73	27.25
4.	Jowar	0.01	0.11	0.01	0.10	neg	neg
5.	Bajra	0.15	1.64	0.15	1.55	0.20	2.00
6.	Barley	0.13	1.60	0.12	1.24	0.11	1.10
7.	Other cereals and millets	0.25	2.74	0.21	2.17	0.16	1.60
8.	Gram	0.03	0.33	0.04	0.42	0.01	0.10
9.	Pulses	0.50	5.48	0.49	5.07	0.48	4.79
10.	Sugarcane	0.01	0.11	0.01	0.10	0.01	0.10

TABLE 5.5 Contd.

1	2	3	4	5	6	7	8
11.	Fruit	0.19	2.08	0.32	3.31	0.39	3.89
12.	Condiments and Spices	0.01	0.11	0.02	0.22	0.02	0.20
13.	Vegetables	0.15	1.63	0.15	1.60	0.15	1.50
14.	Sesamum	0.08	0.88	0.05	0.52	0.06	0.60
15.	Rape and mustard	0.37	4.06	0.49	5.10	0.47	4.69
16.	Linseed	0.05	0.55	0.04	0.41	0.03	0.30
17.	Dyes and tanning material	0.02	0.22	0.03	0.31	0.03	0.30
18.	Fodder crops	0.20	2.19	0.22	2.31	0.28	2.79
19.	Cotton etc.	0.03	0.33	0.01	0.10	0.01	0.10
20.	Sanhemp	0.01	0.11	0.01	0.10	0.01	0.10
21.	Others	0.002	neg	0.001	neg	0.001	neg
	Total	9.13	100.00	9.66	100.00	10.02	100.00

57 lakh quintals in 1982-83. Production showed decline during 1975-76, 1976-77 and 1979-80 due to misbehaviour of weather. But the level has stabilized especially during the last two years. The average yield has come to the level of about 21 quintals per hectare with nearly 27 quintals in Kashmir region and over 12 quintals in Jammu region. The yield rate is one of the highest in the country. The yield rate though fluctuating from year to year has shown slight improvement from 19.40 quintals per hectare in 1973-74 to 20.94 quintals per hectare in 1982-83. Improvement is noticed in both the regions. But only a single crop is possible. The paddy land, except a limited area, sown under winter oil seed, remains mostly idle for non-paddy season, especially in the valley because the winter crops do not normally mature before the paddy season commences.

Maize occupies 2.73 lakh hectares or 27 per cent of the sown area and 32 per cent of the area under goodgrains. The crop is grown throughout the State except in Leh and Kargil district. Minimum area of less than five thousand hectares is accounted for by District Srinagar while the area sown in other districts ranges between ten thousand in Jammu to forty-eight thousand hectares in Udhampur. The crop is, however, irrigated to a very limited extent and not more than 0.16 lakh hectares viz., 6 per cent of the area sown was irrigated during the 1982-83. Production is, therefore, dependent on the behaviour of weather and was 31.58 lakh quintals in 1973-74, 49.33 lakh quintals in 1980-81, 46.13 lakh quintals in 1981-82 and 40.69 lakh quintals in 1982-83. The area cultivated has moved up from 2.66 lakh hectares to 2.73 lakh hectares between 1973-74 and 1982-83. However, the average yield has not shown any definite behaviour but fluctuated between 12 to 18 quintals during the period and was about 15 quintals in 1982-83. The yield rate in the Jammu region which was at 16-17 quintals/hectare has shown improvement and come up to 20-21 quintals/hectares during 1980-82 and declined to nearly 18 quintals in 1982-83. In the Kashmir Valley the yield rate has moved round 9-10 quintals though it has gone slightly higher in some years.

Wheat, one of the three most important crops of our State, accounts for about 2.12 lakh hectares of the sown area.

One-fourth of the area receives irrigation and about 0.52 lakh hectares was irrigated during 1982-83. The yield rate which had stagnated below 10 quintals has gone up slightly above 10 quintals during the last three years. The total production has, however, gone up from 16 lakh quintals to about 22.6 lakh quintals as a result of increase in area from 1.91 lakh hectares to 2.12 lakh hectares. The crop is mostly grown in Jammu region which account for almost the whole of the two lakh hectares sown under the crop except about 3000 hectares in Kashmir region and about 5000 hectares in Leh/Kargil region. The area under wheat is fast declining in the Kashmir region and has fallen from 0.16 lakh hectares in 1973-74 to 0.03 lakh hectares in 1982-83.

Other cereals as barley, jowar, bajra and millets are not much significant in our cropping pattern. They are grown on marginal areas where the principal crops do not have a good prospect. They have shown decline in production and the total output which was 2.86 lakh quintals in 1973-74 stood at 2.52 lakh quintals in 1981-82 and 2.29 lakh quintals in 1982-83. Likewise the pulses group has maintained its level both in area sown and production and the output which stood at 3.17 lakh quintals in 1973-74, 3.37 lakh quintals in 1980-81 and 3.04 lakh quintals in 1982-83.

All foodgrains account for 8.56 lakh hectares or 86 per cent of the sown area. Area under these crops has recorded increase from 8.01 lakh hectares in 1973-74 to 8.56 lakh hectares in 1982-83. The foodgrains production has correspondingly moved up from 9.97 lakh tonnes to 12.61 lakh tonnes during 1982-83. The State, however, continues to be deficit in foodgrain production. The deficiency is met by import of foodgrains and pulses. However, the dependence on imports of foodgrains has been held under control during the past few years and the quantity of wheat and rice imported was 2.04 lakh tonnes in 1982-83 against 2.03 lakh tonnes during 1977-78 despite great increase in population.

Due to artic cold in winter in most of the area the State has low cropping intensity and 62 per cent of the net area sown yields a single crop only. Double cropping is considerable in Jammu, Udhampur, Kathua and Rajouri districts and marginally

practised in rest of the areas. Out of the reporting area of over 24 lakh hectares seven lakh hectares is the net area sown, 6.70 lakh hectares is under forest recorded in the village papers, 5.6 lakh hectares is not available for cultivation, 3.04 lakh hectares is put to non-agricultural uses and 2.56 lakh hectares is barren and uncultivable. Other uncultivated land excluding fallows accounts for 3.62 lakh hectares. Culturable waste land is of the order of 1.45 lakh hectares and fallows land other than current fallows account for less than 9000 hectares. Thus the scope of expansion in cultivated area is limited to about 1.5 lakh hectares of which some part may already have been encroached upon. During the past decade utilization pattern has undergone little change and the cultivated area (net area sown+current fallows) has increased by about 5 per cent from 7.87 lakh hectares in 1973-74 to 8.25 lakh hectares in 1982-83. The corresponding decrease is noticed in old fallows, land under miscellaneous tree crops and cultivable waste land and land put to non-agricultural uses. The behaviour of land utilization in the State is reflected in Table 5.6.

The utilization pattern reflects small change and the broad structure remains the same. However, the pattern may undergo more variation with the expansion of irrigation facilities presently under construction under the major and medium sector especially the lift schemes and the storage tanks which are designed to feed karewa lands and other marginal areas.

WORKING OF NEW AGRICULTURAL STRATEGY IN THE STATE

Birth of New Agricultural Strategy

Poor performance of agricultural sector during second plan period led to sharp rise in price level and caused great concern to the planners. The Government of India invited a team of agriculture experts of Ford Foundation to suggest measures for increasing production and productivity of agricultural sector. The team of experts visited India during January to April 1959 and submitted its Report entitled "India's Food Crisis and

TABLE 5.6

Land Utilisation

(Area in lakh hectares)

Use	1973-74		1977-78		1982-83 (P)	
	Area	%age	Area	%age	Area	%age
1. Area under forests	6.65	27.54	6.58	27.26	6.70	27.74
2. Not available for cultivation :						
(a) Land put to non-agriculture uses	3.19	13.21	3.39	14.04	3.04	12.57
(b) Barren and un-cultivable land	2.44	10.10	2.27	9.40	2.56	10.60
Total—2	5.63	23.31	5.66	23.44	5.60	23.17
3. Other uncultivable land :						
(a) Permanent pastures and other grazing land	21.4	5.14	1.25	5.18	1.23	5.08

(b) Land under misc. tree crops and groves not included in net area sown	1.06	4.39	1.09	4.52	0.94	3.88
(c) Culturable waste land	1.51	6.25	1.43	5.92	1.45	6.91
Total—3	3.81	15.78	3.77	15.62	3.62	14.97
4. Fallow land :						
(a) Fallow land other than current fallows	0.19	0.79	0.08	0.33	0.08	0.33
(b) Current fallows	0.89	3.68	0.91	3.77	0.93	3.84
Total—4	1.08	4.47	0.99	4.10	1.01	4.17
5. Net area sown	6.98	28.90	7.14	29.58	7.24	29.95
6. Total reporting area	24.15	100.00	24.14	100.00	24.17	100.00

steps to meet it" in April, 1959. The team was of the opinion that India's population by the end of the third plan would rise to 480 million and if per capita cereals consumption of 440 gms and 3 ounces of pulses were to be provided, India would require 82 million tonnes of foodgrains at the end of third plan period. Added to it requirement of seeds and cattle feed the total foodgrain production by 1965-66 was put at 110 million tonnes. The team further concluded that at the present rate of increase the food-grains production at the end of third plan would not be more than 82 million tonnes. Thus leaving a gap of 28 million tonnes. The team was optimistic about the capacity and ability of Indian farmer and soil to raise the agricultural production but recommended selection of certain crops and certain areas with assured water supply and with high potential for rapid increase in food production should be taken up for intensive cultivation and in order to maximise food production the farmers of such areas should be provided with adequate materials and services at right time.

The recommendations made by the Ford Foundation Team were accepted by the Government of India and in 1960-61 the Intensive Agricultural Development Programme (IADP) popularly known as package programme was taken up on pilot basis and was initiated in five districts of the country viz. Ludhiana (Punjab), Shahabad (Bihar), West Godavari (Andhra Pradesh), Raipur (Madhya Pradesh) and Aligarh (Uttar Pradesh). In 1962-63 some more districts were included in the programme. Thus by the end of 1962, package programme was extended to almost one district in each State of India. In the State of Jammu and Kashmir two districts, Jammu and Anantnag, were taken up for the introduction of package programme. In all these districts, efforts were made to provide all types of agricultural inputs and other services through Block Development Agencies. These included :

(1) adequate and timely supply of credit;
(2) adequate and timely supply of chemical fertilizers, pesticides, better seeds, implements etc. ;
(3) providing marketing facilities mainly through cooperatives;

(4) adequate storage and transport facilities; and
(5) educating farmers by demonstration.

Thus a new strategy of concentrating all efforts in certain selected areas to stepped up agricultural production was initiated in the beginning of the Third Plan period.

In March, 1964, Intensive Agricultural Area Programme was taken up. This programme was not meant for intensive development of one or two crops only but rather in terms of intensive development of a selected area. In the beginning 114 districts throughout the country were taken up.

Elements in New Agricultural Strategy

The working of agricultural sector during the Third Plan period showed that a new strategy or approach was very much needed if Indian economy was to be freed from food imports and increased agricultural production was to be achieved in a short span of time. The draft outline of Fourth Plan asserted that it is necessary to make for greater use of modern methods of production and to bridge the gap between demand and production by the application of the latest advances in the science of agriculture. A similar view was expressed by a Government publication in April, 1965. It said, "History of economic development in general and agricultural development in particular of other countries of the world shows that transformation of traditional agriculture is possible through strong injection of modern technology and scientific techniques on a massive scale. This is the problem touching all the major aspects of agriculture e.g. research, experimentation, education, training extension, supply arrangements, optimum utilisation of land and water resources, proper land management and adoption of more productive techniques.[6]

Against this background the new agricultural strategy which aimed at rapid and spectacular increase in food-grain production was adopted in 1966-67. Although a new strategy in agricultural development in terms of I.A.D.P. and I.A.A.P. was already working in the country but the fundamental departure in the new strategy was "the introduction of intensive cultiva-

tion using new high yielding varieties of seeds backed by more and better plant nutrients – effective plant protection and adequate water supply".[7] In the new agricultural strategy, a three dimensional approach towards agricultural development was adopted which consisted of high yielding variety of seed, adoption of modern chemical technology and food-grains price supply policy. This programme envisaged a super intensive type of agricultural development based on package principles.

Productivity

Productivity trends of food-grain in the State would show the impact of new agricultural strategy on farm production. Productivity in terms of quintals per acre of different food crops as well as of total foodgrains has been depicted in the table 5.7 from 1964-65 to 1973-74 taking 1964-65 as base.

The period since 1966-67 was marked with the introduction of new agricultural strategy, the characteristics features of which were the introduction of high yielding variety seeds, chemical fertilizers and other improved agricultural practices in the State. But it is paradoxical that except in case of wheat, no significant improvement in productivity could be achieved during the 8-year period. Paddy productivity in 1973-74 was marginally higher than what it was in 1964-65. Per acre production of paddy was 7.68 quintals in 1964-65 which rose to 7.85 quintals per acre in 1973-74. Productivity of maize has shown a declining trend. Its production per acre was 6.11 quintals in 1964-65 which has fallen to 4.78 quintals per acre in 1973-74 i.e. a decline to 22 per cent. In the same way no improvement in productivity is visible in case of total food-grains. One can conclude that the importance given to intensive agricultural development in State for the last eight years has not given any sound results and the State had badly failed in increasing production and productivity of two principal crops, paddy and maize.

Area under High Yielding Variety Programme

In the Fourth Plan, for enhancing grain production major reliance was placed on high yielding varieties of seeds. In

TABLE 5.7

Productivity trends of food cereals in Jammu and Kashmir from 1966-67 to 1973-74

(Per acre production in quintals)

Year	Rice	Wheat	Maize	Bajra	Other food cereals	Total food-grains
1964-65	7.68	2.63	6.11	2.31	2.40	5.41
1966-67	6.65	2.43	6.17	1.53	2.58	5.16
1967-68	8.13	2.81	5.31	2.24	3·98	5.44
1968-69	7.61	2.55	5.39	2.24	2.45	5.15
1969-70	8.08	2.46	5.73	1.64	2.06	5.47
1970-71	7.22	2.73	5.70	2.31	2.01	5.17
1971-72	7.07	3.79	5.21	2.46	2.21	5.20
1972-73	6.01	3.73	5.56	2.13	2.24	5.01
1973-74	7.85	3.59	4.78	2.15	2.47	5.25

1968-69 the total acreage under HYV seeds stood at 3.09 lakh acres. As stated earlier, the target of Fourth Plan period was to raise this area to 7.7 lakh acres. The progress achieved during 1968-69 to 1973-74 is depicted in the table 5.8.

TABLE 5.8

Area under H.Y.V. seeds of principal crops in Jammu and Kashmir

('000 in acres)

Year	Paddy	Wheat	Maize	Total
1968-69	284	89	6	381
1969-70	299	100	7	409
1970-71	268	140	30	441
1971-72	270	148	35	461
1972-73	345	239	40	633
1973-74	395	277	40	712

Sources : State Fifth Five Year Plan, p. 52, J & K Government, and Annual Plan 1975-76, p. 24.

The figures adduced in the table 5.8 show that the area under HYV seeds of the three principal crops has been rising steadily during the period under study, and by 1973-74, about 40 per cent of total acreage under food-grains was brought under the HYV seeds. Out of the total, 69 per cent of the area under paddy, 60 per cent of the area under wheat and 6 per cent of the area under maize was brought under this programme.

It seems that the State has achieved a considerable success in extending the area under HYV seeds as far as two important crops, paddy and wheat are concerned but no significant break through could be made in case of maize which in 1973-74

accounted for about 35 per cent of the total acreage under food-grains.

A doubt arises when about 70 per cent of the total area under paddy was brought under HYV programme, why no significant improvement was noticed in its productivity. The possible reason is that State simultaneously could not increase acreage under assured water supply which is precondition for the success of HYV programme. Secondly, in the valley, which is the major rice producing region of the State, no break through in the better quality seed has been achieved.

Introduction of modern technology is yet one more attack on the backwardness of our agriculture. Modern implements comprising of field equipment, post-harvest equipment, grain tools, horticulture tools are manufactured and made available to the cultivators. Training is also provided in the use of this equipment. Level of expenditure on this programme is of the following order :

1978-79	Rs. 5.70 lakh
1980-81	Rs. 5.76 lakh
1981-82	Rs. 7.19 lakh

Popularisation of tractors is yet one more important achievement. The number of tractors has gone up from 710 in 1974-75 to 1,728 in 1981-82. A noteworthy thing is the concentration of tractors in the Jammu region which accounts for 1,372 or 87 per cent of the total of 1,728 tractors in the State ending 1981-82.

The various measures have led to considerable improvement in production. The following principal cereal crops, for example, have shown increase :

Crop	Total production (lakh quintals)	
	1974-75	1980-81
Rice	4.56	5.46
Maize	3.04	4.93
Wheat	1.93	2.07

The yield rates have also moved up for example, the yield of rice has gone up to 20.65 qtls/hec. against 19.16 qtls/hec. and that of maize from 11.37 to 17.93 qtls/hec. The total food-grain production has gone up from 10.10 lakh tonnes in 1974-75 to 13.10 lakh tonnes in 1980-81.

High Yielding Varieties

The area under high yielding varieties of paddy, wheat and maize—the three principal cereal crops of the State, has been increasing during these years. The area under high yielding variety programme of these three crops which was 3.45 lakh hectares in 1975-76 increased to 4 lakh hectares during 1977-78. During 1976-77 additional twenty-five thousand hectares were brought under the high yielding programme of cereal crops. Besides this, the area under high yielding varieties of Jowar and Bajra has increased four times since 1975-76. As against one thousand hectares during 1975-76, it increased to 4 thousand hectares last year. This year it is expected to bring additional 11,000 hectares under the high yielding programme.

The main seed production programme in the State is presently being undertaken at the 3000 acres farm at Chinore in Jammu Division and 600 acre farm at Padgampo in Kashmir Division. At Chinore farm the gross cropped area is proposed to be increased to 3250 acres. In addition there are a number of small farms where seed is produced. From year 1979-80 it was proposed to launch seed village programme in compact areas of the State for raising of seed of paddy, wheat etc. This will go a long way in making the supply position of seeds comfortable.

In order to popularise the cultivation of high yielding variety of various crops and to make available certified seed to the farmers at reasonable rates the distribution of seed is made on subsidised costs.

To ensure the distribution of quality seeds the State Government has set up two Seed Testing Laboratories one each in Jammu and Kashmir Divisions. During the year 1976-77 the Laboratories have processed, bagged and tagged about 6,600 quintals of different varieties of seeds. During the year 1979-80

processing, bagging and tagging of 28,000 quintals of different varieties of seeds is envisaged and more than 7,000 seed samples will be tested for germination.

Use of fertilizer is the most important programme. The quantity utilized has shown eight-fold increase from 7.18 thousand tonnes in 1974-75 to fifty-five thousand tonnes in 1981-82. The progress is reflected below :

Fertilizer used ('000 tonnes)

Year	N	P	K	Total
1974-75	5.81	1.07	0.30	7.18
1977-78	11.64	3.24	0.50	15.38
1980-81	16.41	4.08	1.00	21.49
1981-82	40.00	10.00	5.00	55.00

A number of H.Y.V. seeds have been evolved in research farms, multiplied and distributed among farmers to increase production. The programme has gone a long way to improve productivity. The use of high yielding variety seeds has shown considerable increase as shown below :

Quantity of HYV seed distributed (Tonnes)

Year	Paddy	Maize	Wheat	Total
1974-75	245	107	1,280	1,640
1977-78	440	140	1,330	1,910
1980-81	273	245	1,199	1,717

Other Measures

Due attention has been paid to plant protection measures which is an important input for agricultural production. During

the year 1977-78, 44,000 hectares were covered under plant protection measures and in 1978-79 about 90,000 hectares were expected to be covered. During 1979-80 year a target of bringing 95,000 hectares under this programme has been fixed.

Consumption of pesticides and weedicides which was about 11 tonnes during 1975-76 reached 16 tonnes during 1978-79. For 1979-80, 25 tonnes of pesticides are expected to be consumed.

To provide the farmers with improved agricultural implements, the State Government has established two Agricultural Input Research-cum-Production Workshops, one each in Jammu Division and Kashmir Division. Improved agricultural implements developed at these workshops are becoming available and quite popular with the farmers. During the current year, two more workshops are being opened at district level for increasing the training and demonstration facilities.

The extent of the problem of soil conservation in the State is quite enormous and an endeavour has been made during the past four years to cover larger areas under these protection measures. About 1,040 hectares were covered under the Soil Conservation Programme during 1975-76 which increased to 1700 hectares during 1977-78 and last year 2500 hectares were covered. The target for the current year 1979-80 has been fixed at coverage of 3500 hectares.

Considerable stress is being laid on expanding research facilities in the agricultural sector. There are 10 All India Coordinated Research Projects on various crops under implementation in the State. In addition, State Research Schemes are being carried out at Main Rice Research Station—Khudwani (Anantnag), Rice Research Sub-Station, Larnoo (Pulwama) and Regional Research Station Ponichak in Jammu district. A Sub-Station for Warm Temperature Zone has been established at Rajouri.

A number of varieties of paddy have been evolved at these stations amongst which two of the varieties namely K-78 and PC-19 have been released. Two more new varieties are under process and are being released next year which are of higher yield and are also disease resistant.

Under All India Coordinated Wheat Improvement Project, research is being carried at Shalimar (Srinagar) and Ranbir

Singh Pura (Jammu). High yielding varieties of wheat like HD-1981, HD-1553, HD-1953 and HD-2009 have so far been found suitable for cultivation in the State.

To develop crop production technology for rainfed agriculture and to educate farmers a Dry Land Agriculture Programme has been initiated. During the current year about 3,000 hectares are expected to be covered under the inputs programme.

The area under oil seeds, which was 39,000 hectares during 1975-76 has increased to 75,000 hectares during 1977-78. This was expected to go up further by ten thousand hectares which will enable the State to reduce the quantum of imports of oil seeds and edible oils.

An additional area of five thousand hectares of land is being brought under pulses during the current financial year. The District of Baramulla and Jammu have been covered under the first phase of Centrally Sponsored Scheme aimed at development of pulses in the State.

In order to increase vegetable production, Vegetable Development Programme has been taken up in the State. The cumulative areas covered under the programme has increased from 2820 hectares in 1975-76 to over 5600 hectares in 1977-78. In the year 1976-77 about 6800 hectares were covered and during the year 1978-79 the area under Vegetable Development Programme was expected to increase to 8000 hectares.

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6

Horticulture

Role of Horticulture in Economic Development

Kasmir has been known for its fruits from times immemorial. The physical and climatic conditions in the State are favourable to growing various kinds of temperate and sub-tropical fruits. The Government of Jammu and Kashmir did not pay much attention to the development of Horticulture during the first two Plan periods. However, serious attempts were made to develop horticulture during the third plan period and the most important step in this direction was the creation of a separate Horticulture Department.

With their number standing at 8,86,605 the cultivators account for 64 per cent of the total working population of 1,385,118 in Jammu and Kashmir according to the 1971 census. Though this does mark a decline in the number of persons engaged in agriculture and horticulture as also a proportionate increase in the number of persons engaged in secondary and tertiary pursuits, it reestablished the fact that the State is primarily agricultural as well as horticultural and that the development in this sector will condition and determine the overall growth of the State economy.

The potential for growing temperate fruits in our State, of which apple contributes 80 to 90 per cent is about 4 to 5 lakh acres as out of total cultivated area of 16 lakh acres. The

Government having realised the potential available and the economic importance of fruit development in the State created a separate department of Horticulture under extension programme of planning in the year 1962. Till then the horticultural development work was being looked after by the State Agricultural Department in addition to its multi-farious activities. According to an old survey, the area under orchards at the time of independence was assessed as about 31,000 acres. This increased just to over 40,000 acres in the year 1961-62 i.e. before the creation of the Horticulture Department. At the time of independence the production of fruit was over 23,000 metric tonnes.

Fruit Industry

The State has already witnessed big strides in the fruit production. Table 6.1 represents the area covered in fruit trees and production.

TABLE 6.1

Area covered in fruit trees and production

Year	Area under fruit cultivation (apples) (Acres)	Production estimated (fruits) (M. Tonnes)
1964-65	44,300	27,306
1965-66	45,600	38,096
1966-67	47,200	30,846
1967-68	52,000	55,811
1968-69	83,000	77,569
1969-70	91,200	91,619
1970-71	96,000	107,237
1971-72	130,000	134,000
1972-73	140,000	183,000
1973-74	150,000	200,000
1974-75	160,000	128,000

From Table 6.1 it is apparent that the production of apples in Jammu and Kashmir increased from 27,036 tonnes in 1964-65 onwards to 1,28,000 M.T. in 1974-75. Appraisal of the data indicates that upto the year 1967-68, the production was almost constant and it was since this year that production has increased.

In the year 1973-74 the area under fruit cultivation increased to the the tune of 1,60,000 acres. The total production exceeded 1,09,000 metric tonnes. This amounted to a total return of more than Rs. 20 crore. The foreign exchange earnings were as high as Rs. 2 crore. In the year 1974-75 the area under fruit plantation leaped to 160,000 acres producing 1,28,000 metric tonnes of fruit. Fruit production which was 3.74 lakh tonnes during 1975-76 has increased to 4.50 lakh tonnes during 1978-79. The export of fruit which was 2.64 lakh tonnes during 1975-76 increased to 3.33 lakh tonnes during the year 1978-79.

The major horticulture production in the State is apple, covering nearly 75 per cent of the total area under horticulture. The apple trees start bearing fruit eight years after being planted. Given below are production figures both of past performance and of projected future :

('000 tonnes)

Year	Total Production	Calls	Inter State Consumption	Marketed out of State
1976	329	64	20	242
1977	310	62	26	220
1982	520	105	25	390
1987	640	30	30	480

Saffron

Besides Spain the only other State producing saffron is Jammu and Kashmir. The saffron belts are limited to Pampore area of the Valley and Kishtwar Valley of Jammu Province.

Every year saffron worth lakhs of rupees is being sold outside the State in foreign markets. The annual production of saffron varies from 10 to 12 tonnes. The crop gives about 0.8 to one kg. per kanal. The growers earn about Rs. 120 per ten grams of the saffron.

Mushrooms

Though the industry has taken spurt recently it continues to grow at a fast speed because of high returns per unit. The industry has taken up its strong hold in the valley on account of congenial climatic conditions. The cultivation is being encouraged in the valley through the Mushroom Development Wing of Agriculture Department and Regional Research Laboratory, Jammu. By the end of October, 1975, the Regional Research Laboratory alone has sold about 10,000 bottles of Spawn (between January and June). The quality of spawn is estimated to yield about 42 tonnes of fresh Mushroom amounting to Rs. 4.6 lakhs at the rate of rupees 11 per kg. This production figure is besides the production procured from Spawn imported from Himachal Pradesh and purchased from the State Department of Agriculture. The capacity of production is bound to increase manifold with the introduction of European strain resistant to high temperatures. The production of these varieties will extend the scope of cultivation of Mushrooms to the sub-tropical areas of the State. There has been spectacular increase in mushroom production. The mushroom production which was 301 kgs. in 1966-67 touched the mark of 1,19,000 kgs. With a view to boosting further the mushroom production a training programme has been launched within the State. Several facilities are being extended to the growers which include free advisory services, supply of spawn on no-profit-no-loss basis. Improved plant protection equipment is also provided to the growers.

Hops

Hops was introduced by Maharaja Ranjit Singh. The hop garden at Doubgah below Sopore has within the last few years been reclaimed from the wilderness. 83 acres of land was under

hops in 1893. Every year hops are purchased from United States of America to the tune of Rs. 60 lakh in foreign exchange. Investigation about the capacity of the State to produce hops has met with great success. Recently, the Mohan Meakin Breweries Ltd. have established experimental farm in the valley on Srinagar-Baramulla Road in order to try hops cultivation. The State Department of Agriculture and the Regional Research Laboratory have also engaged in this activity at Shalimar and some commercial varieties of hops have been grown successfully. Within a period of few years the State shall not only be in a position to save the foreign exchange of Rs. 60 lakh spent on the import of hops but may also be able to export it, besides meeting the requirements of the country.

Walnuts

Walnut is next important item to apple in the field of Horticulture. Walnuts cover nearly 18000 hectares of land in Jammu and Kashmir State.

Plant Protection

It is proposed to extend the plant protection over the entire area under fruit orchards during the Sixth Plan. For this purpose required organisation will be built which will be provided with adequate facilities for mobility and equipment.

Programmes have been launched to protect fruit trees against ravages of pests and diseases. Orchardists are being given benefit of subsidy on account of cost of fungicides and plant protection machinery used in the programme. During 1977-78 about 9,000 acres were sprayed and during 1978-79 it increased to 3,60,700 acres. The subsidy provided during 1977-78 was of the order of Rs. 40,12,200 and in 1979-80 year it increased to about Rs. 1,43,33,500. It is proposed to cover net orchard area of 1.27 lakh acres with five sprays (including one post harvest spray) against apple scab during the year 1980-81 and subsidy on cost of fungicides has been estimated at about Rs. 273.00 lakh. The subsidy provided to orchardists at present is 75 per cent.

Marketing and Planning

Horticulture has assumed great importance during the past two decades in our State economy. It provides employment to thousands of our people and makes a handsome contribution to the State domestic product. Though no realiable information is available about the quantity of fruit produced yet the quantity exported indicates great progress in the industry. The exports which were about eleven lakh quintals in 1971-72 and 17 lakh quintals in 1973-74 have been of the order of 39 lakh quintals in 1980-81, indicating slightly less than four-fold increase since 1971-72 and two-fold increase since 1973-74.

However, one of the main limitations of our Horticulture industry has been that the fruit market has been dominated by the commission agents of Delhi operating through their agency in Srinagar. The agents have been providing finance to the local growers and arranging marketing of produce. This agency of middleman has grown very powerful and according to an estimate only 25 per cent of the profit accrues to the grower—the rest being devoured by the commission agents. Another important difficulty is the problem of glut in the peak season and uneconomically low process of fruit caused by lack of storage facility and non-diversity of market. Inadequacy of grading and scarcity of packing material are the other scrumbling blocks for the Industry.

In order to tackle these problems and to put the fruit trade on a sound and healthy footing, the Horticulture Planning and Marketing Organisation was set up with the following objectives :

(i) To organise orchardists into cooperative marketing societies.
(ii) To introduce standardisation in fruit trade.
(iii) To organise the growers for getting their problems of transport and packing solved.
(iv) To collect and disseminate market information.

A major programme undertaken is the J & K Integrated Horticulture Project being established in collaboration with the

World Bank which is likely to cost 27.6 million dollars or Rs. 24.22 crore which includes Rs. 14 crore from the World Bank. The purpose is to benefit small growers by providing facilities and services for apple and walnut grading, packing and marketing. It provides :

(a) For apples, 25 apple grading and packing centres, of which ten of 6000 tonnes of capacity and 15 of 1000 tonnes; 17000 tonnes cold storage; ten saw mills attached to the larger grading and packing centres to produce fruit containers; a fruit transhipment centre; and a 12000 tonne per year capacity apple juice processing plant.
(b) For walnut, 14 hulling/drying and packing centres of which one 2000 tonnes capacity, one 1000 tonnes capacity and twelve 500 tonnes capacity; and a 4000 tonnes a year processing centre to deal mainly with nuts for exports.
(c) For mushrooms, improved spawn production and research facilities.
(d) Rs. 20 million seasonal credit to help growers meet fruit production and harvesting expenses.
(e) Specialised cold storage, laboratory and library facilities to enable Department of Horticulture to conduct post-harvest trials with fruit.
(f) Three studies to improve apple, walnut and apple juice marketing and a project evaluation study; and
(g) 90 man months consultants time and 62 man months of overseas training to support design and operation of project facilities and to help Department of Horticulture and Agriculture to improve fruit and mushroom production.

Considerable work has been done by the organisation. The setting up of cooperative marketing and processing societies has progressed at a very fast speed and the number which was two only in 1972-73 is now 99 with membership of 0.10 lakhs. The societies have shown considerable competence to handle trade in 1978-79 and 6.01 lakh boxes in 1980-81.

On the marketing front exploration of new markets has been taken up. Surveys and research have been conducted to find out new markets. The following markets have been covered :

1. *Bihar* : Patna, Muzaffarpur, Ranchi, Jatni.
2. *Orissa* : Cuttack, Rourkela, Bhuvneshwar.
3. *Rajasthan* : Jaipur, Ajmer.
4. *Tamil Nadu* : Madurai, Trichina-Palli, Rahanawar, Madras, Maisusaram, Vallore, Coimbatore.
5. *Maharashtra* : Vidarbha.
6. *Karnataka* : Karnataka.

This has helped in identification of new markets and diversification of the fruit trade. Expansion of markets was accompanied by appointment of area marketing officers in important markets to look after the interests of the fruit industry. Delhi, Bombay, Calcutta, Madras, Hyderabad, Ahmedabad, Jaipur, Amritsar, Bangalore, Trivandrum, Bhopal and Patna are provided with such officers. This has had a diversive impact on the fruit and the quantity of fruit despatched to these markets was 3.92 lakh tonnes in 1980-81 against 3.44 lakh tonnes in 1979-80 with the share of market other than Delhi having gone up from 0.73 lakh tonnes to 1.28 lakh tonnes and that of Delhi having come down from 2.71 lakh tonnes during the same period.

Inside the State, two modern fruit markets with cold storage facilities are being developed one at railway station, Jammu and the other at Parimpora, Srinagar, so that fruit is sent directly to the terminal markets eliminating the monopolistic middle agency. The Jammu market envisages 235 shop sites out of which 115 have already been developed at a cost of Rs. 54 lakh. 98 shop sites have been allotted to the traders/growers. At Srinagar, an area of 41 acres is being developed and 77 shops are expected to be completed by July, 1981. The fruit market is expected to cost an amount of Rs. 138 lakh.

Modernisation of grading system is an important programme and a shift from traditional to the standard grading is the objective. Revised grade standards have been prepared with

the help of experts from Australia and UNDP for commercial varieties of apples and are proposed to be adopted under AGMARK which would eventually pave our way to the entry into the international market. 1100 graders have been trained in traditional packing and another 200 were receiving such training during the last year. 34 packers have been trained in mechanical grader and packing in cardboard cartons too.

Under the integrated Horticulture Development Project, the construction of packing and grading houses for apple is going on at the following places :

1. Zakoora
2. Beerwah
3. Pattan
4. Sumbal
5. Doabgah (Sopore)
6. Handwara (Batakote)
7. Beharampora
8. Doabgah (Shopian)
9. Rajpora (Pulwama)
10. Chakhanjan (Kulgam)

The introduction of these packing houses would bring our grading to a standard comparable to the best system available in the world. These would also enable great saving in time as also render service to growers who are not in a position to employ enough number of packers. The unit of Zakoora, Chakhanjan, Doabgah and Handwara are likely to be in operation in coming season.

Walnut hulling and drying centres are under construction at the following places :

1. Bindoozalangam (Kokernag)
2. Achhabal (Anantnag)
3. Chowdhrygund (Shopian)
4. Rajpora (Pulwama)
5. Tral

6. Beerwah
7. Magam (Handwara)

The completion of these centres would reduce the time needed in hulling and drying of fruit and edible to catch the peak marketing pre-christmas season in Europe which is otherwise lost.

Experiments were conducted in post harvest technology apple grading—cold storage project with the assistance of the Australian Government. Four of our officers visited Australia in order to gain some experience in the same field. Some Australian experts too visited our State and imparted training in packing, grading and spray work.

Construction of cold stores designed by Australian Consultants has begun at Zakoora, Doabgah and Chakhanjan. The purpose in constructing these stores is to withhold some of the produce in the valley and thereby prevent glut of prices in the peak season and also ease the problem of transport by phasing despatches. Besides, cold storage immediately after harvest is likely to make the fruit more long lasting.

A 4000 ton export processing centre has been designed by our American Consultants. A juice plant is also being designed with the help of a expert from New Zealand which would be operational by the end of the next year.

In order to ease the problem of packing cases, ten saw mills are proposed to be attached to larger packing and grading centres. Besides, in order to overcome the shortage of packing material experiments on pice needle board cones and corrugated card board cartons have been conducted. Efforts are under way to find a cheap substitute to the scarce and costly shooks.

The organisation has been rendering considerable assistance by way of dissemination of information on prices, stocks etc. through telex, telephone and radio. Besides, information has been given on consumer preferences. News bulletins have been broadcast as also exhibitions held for the same purpose at Delhi, Hyderabad, Madras, Bombay and Calcutta. A retail sale centre has been established at the World Trade Centre, Bombay.

7

Power Resources

NEED FOR POWER DEVELOPMENT

Power has played a key role all over the world in industrialisation as well as in the modernisation of agriculture. The process of modernisation, increase in productivity in Industry and agriculture and improvement in the quality of life of people are basically dependent on the adequate supply of energy. In the exploitation and utilisation of energy, there has been gradual shift towards electrical energy which is more convenient and versatile form of energy. In fact, electricity has become the most essential building block for the progress. It has been the most powerful vehicle of economic development and social change.

Broadly speaking, electricity means light and heat, saving of human energy and conservation of natural resources. Electricity is of crucial significance in effecting rapid socio-eco-transformation in rural areas. Electrification is a necessary precondition for providing irrigation facilities and rural industrialisation programme. Electricity is also a basic input for improving the quality of life of the people. Moreover, it is an adjunct to the programme of Tourism. The provision of electricity modifies and enlarges the existing facilities and attracts more tourists.

The most important use of electricity in rural areas is for pumping water. Till electrification of rural areas, the use of

electricity for purpose of pumping water will considerably limit the expansion of pump sets.

Our State has vast potentialities both in terms of material and human resources which can help the State in accelerating the tempo of social and economic development. Electricity is needed for exploitation of horticulture, live-stock, forests and mineral wealth in the State. Rural electrification provides the key to stimulate the overall growth of rural economy.

Kashmir province, Ladakh and some areas on the higher reaches of Jammu Province are characterised by one season economy. In the winter season, all productive activities come to halt in these areas. This results into lower per capita income and low per capita production. The climatic disadvantage can be removed effectively by introducing heating in all productive sectors of the economy. The present indigenous heating methods are primitive, wasteful and inefficient. But not even a single of these can be employed on a large scale for boosting production. The use of timber for heating purpose is wasteful and inefficient because timber being an important natural resource can be utilised more profitably to create more wealth. The modern system of heating based on electricity fulfils two objectives ; firstly, it increases production by creating comfortable environmental conditions in winter and secondly replaces timber as a source of heating. In addition to industrial production, central heating is of great help in the cultivation of mushrooms, valuable flowers for export and the like. As already indicated food production can be increased manifold with the help of assured regular irrigation. In nutshell we can say that power development holds the key to all round development.

Plan Expenditure

The State with its limited financial resources is doing its utmost not only to step up work on the projects in hand but also to take up the investigation of new projects in a phased manner. The cumulative investment made on power development in the State ending 1981-82 is 248.66 crore. The investment in the sector during the last eight years only from

the Fifth Plan onwards has been of the order of Rs. 163.56 crore or 65 per cent of the total investment made into the sector. The current year's (1982-83) outlay is Rs. 2,436 lakh against Rs. 1,842 lakh during 1974-75. Outlay for the Sixth Plan (1980-85) only is of the order of Rs. 169.50 crore.

TABLE 7.1

Plan expenditure on power development

(Rs. in lakh)

Period	Amount Outlay	Expenditure
Ist Plan	295.08	272.86
IInd Plan	329.24	353.84
3rd Plan	1,065.75	906.50
Inter Plan	1,424.48	1,484.83
4th Plan	4,009.00	5,492.07
Total	7,123.56	8,510.15
5th Plan	10,269.23	8,776.79
1978-79	1,883.00	1,618.00
1979-80	1,900.00	1,741.80
1980-81	21,250.00	2,125.00
Total	16,177.23	14,261.59
G. Total	23,300.79	22,771.74
6th Plan (1980-85)	16,950.00	

The above figures indicate that there has been a total investment of Rs. 22,772 lakh on the development of power resources since 1950-51. The note-worthy thing however, is that the development of power has received greater attention since the 5th plan only. The total investment in the sector during a period of mere 7 years from the 5th plan onwards has been of the order of Rs. 14262 lakh or 63 per cent of the total investment made into the sector during all the three decades.

In fact, expenditure during the 5th plan alone amounted to Rs. 8,777 lakh which was much more than the total amount spent in the earlier 24 years and the annual expenditure now is well above the total plan period expenditure of each individual plans, during the first three plans and the inter plan period.

Power Potential Identified

The State has great potential for Hydel Power. The potential has been identified in Table 7.2.

TABLE 7.2

Hydel power potential identified

Item	Potential (M.W.)
I. Projects Commissioned	
Jammu	26.00
Kashmir	152.60
Ladakh	0.76
Total	179.36
II Projects under construction	
Jammu	556.00
Kashmir	98.00
Ladakh	6.00
Total	660.00
III. Projects under investigation	
Jammu	4,519.50
Kashmir	1,246.00
Ladakh	79.00
Total	5,844.50

TABLE 7.2—Contd.

Item	Potential (M.W.)
IV. Projects identified but not investigated	
Jammu	945.00
Kashmir	1,250.00
Ladakh	750.00
Total	2,945.00
G. Total	9,628 86

The availability of power in the State has shown tremendous increase as compared to the base level supplies. As we have already said we had only two small power houses to start with. Even after a decade viz., in 1955-56 out installed capacity did not exceed 11 MWs. By 1973-74, however, the capacity stood at 83 MWs and the present level in 209 MWs and we have a number of power houses now. The important power houses are given in Table 7.3.

TABLE 7.3

Important power houses in the State of Jammu & Kashmir

Name of the power house	Installed capacity (MW)	Maximum generating capacity (MW)	
		During summer	During winter
1. Lower Jehlum Hydel Project	105	105	70
2. Chenani Hydel Project	23.0	18.0	10.0
3. Upper Sindh Stage-I	22.6	18.0	12.0
4. Kala Kote Thermal Station	22.5	6.0	6.0
5. Ganderbal Power House	15.0	13.5	12.0
6. Mohra Hydel Power House	9.0	9.0	8.0

Rural Electrification

The rural electrification programme aims at extension of power supply to all villages in a phased manner. The total number of villages and hamlets provided with electricity was 15 only in 1960-61 accounting for much less than one per cent of the total villages in the State. The number was 1,742 in 1974-75 and in 1979-80 the facility has been made available to 5,185 villages and about 458 were likely to be covered during 1980-81, bringing the total number of villages electrified during these years to much more than three times as much as that covered during the entire period of earlier 24 years. The entire number of inhabited villages and hamlets in the Jammu and Kashmir provinces is expected to be brought under the electrification programme within a couple of years. Ladakh and Kargil would take some time for being.

The completion of these projects would thus add another 1,533 MW to our installed capacity.

The increase in generating capacity has led to tremendous achievement in quantity generated too. The total power generated was 2.38 crore units in 1955-56 and 23.56 crore units in 1973-74. The subsequent years have been much faster growth and the total quantity of power generated stood at 69.18 crore units at the end of 1979-80. The overall development of the State and extension of the facility of electricity to rural areas in ever larger numbers has however, given a great push-up to the demand too and inspite of the big leaps in our generating capacity and in quantity generated, we have had to import substantial quantity of power from the northern region especially Punjab. The quantity purchased during 1979-80 was of the order of 31.59 crore units. The total power available during 1974-75 was 30.06 crore units against which the availability had risen to 100.77 crore units in 1979-80. The annual per capita availability had correspondingly moved from 60 units in 1974-75 to 178 units in 1979-80.

The collection system of revenue has been streamlined to a great extent, the flow of revenue has shown great improvement and has nearly trebled during the past six years as shown below :

Year	Amount (Rs. in crore)
1974-75	3.58
1977-78	6.67
1978-79	7.52
1979-80	8.33

New Projects

The installed capacity rose from 83.62 MWs in 1974-75 to 103.62 MWs in 1975-76, with the commissioning of 4th and 5th units of the Chenani Hydel Project. Taking into consideration on the significance of development of this vital sector, the pace of work on various projects has been speeded up. The policy of the Government, however, is to concentrate more on completion of the on-going projects rather than spreading the resources thin and taking up new projects in a haphazard manner.

Lower Jehlum Hydel Project

Among the important projects on which work is proceeding at an accelerated tempo is the Lower Jehlum Hydel Project. When completed the Power House will have an installed capacity of 105 MWs comprising three generators of 35 MWs each. In Kashmir Valley, hopes of immediate benefit have been pinned on this project. It is estimated to use 20 lakh bags of cement and 24,000 tonnes of steel. The first unit of this project with a generating capacity of 35 MWs is scheduled for commissioning in September, 1977. The remaining two units of identical capacity will go into commission after six months each of the commissioning of the first unit.

The estimated cost of this project is Rs. 60.52 crore with an installed capacity of 105 MW. An allocation of Rs. 1100 lakh has been made for the current year against a realistic need of 1425 lakh owing to financial constraint.

Upper Sindh Hydel Project

The biggest Hydel Project in Jammu and Kashmir at present is Salal Hydro-Electric Project located at Dhyangarh near Reasi in Udhampur District in Jammu Division. This project is under the Central Generation Scheme. It is a run of the river scheme diverting waters of Chenab for utilisation to produce electricity. This project has an installed capacity of 345 MW comprising 3 units of 115 MW each. The first unit of the project was expected to be commissioned in March, 1981 but there are no chances in immediate future. On completion it will change the entire complexion of the State's power output.

The construction work was taken up in 1970 but early investments went into the building of roads, housing colonies —One of them named Jyoti Puram or city of Lights and other infrastructural facilities.

The project envisages the construction of a 115-metre high rock filled across the Chenab in the Dhyangarh loop, about 120 KM north-west of Jammu. A 65-metre high concrete dam will come up on the ridge separating the northern-southern timbs of the loop. A spill way for release of flood discharge will be accommodated in it The power house will be on the right bank of the river and the waters of the tail race will be discharged back into river after passing through 2.4 KMs long underground tunnel.

About 3000 workers including about 500 skilled labourers are working at the Project site. The expenditure in this financial year (1977-78) has been estimated to be about Rs. 50 crore against a total of Rs. 46 crore in the last six years. This would include an investment of about 14 crore in earth-moving equipment. A workshop which would employ more than 3000 people was being set up. The current estimate of the cost of the project is Rs. 222.13 crore.

The State will be getting 50 per cent of the generation from this project at cost. The balance power will be fed into the Northern Regional Grid. For this purpose a 220 KV Transmission line will be constructed from Dhyangarh to Jammu and then to Sarna Grid Station near Pathankot. Another Transmission

line from Dhyangarh to Udhampur will also be constructed at Udhampur. It will also be connected to the Udhampur-Sarna Grid Line. The Salal Project has provision for a second stage and also of three units of 115 MW each.

Stakna Hydro Electric Project

At present in the whole of Ladakh District, there is no hydel power project. The towns of Leh and Kargil are supplied electricity from two small diesel generations. The first ever Hydel Power Project will be located at Stakna, a village 28 Kms from Leh upstream on the Indus river. The headworks will be Marselong village, 7 Kms upstream on the Leh-Cheshul road. The water conductor will be 6.5 Kms long giving a head of 78 ft. for the Power House.

The Stakna Hydro Electric Project in Ladakh was first taken up for execution in 1969-70. But not much progress could, however, be achieved on the project and with its scope having been increased to 8 MWs, its cost shoot up to Rs. 22.40 crore in 1975-76 from Rs. 2.31 crore in 1969. The project has been cleared for an installed capacity of 4 MWs at a revised cost of Rs. 12.75 crore by the Central Ministry of Energy. Work on it has been restarted. In the meantime one MW diesel generating sets are to be installed at Leh to meet the power requirements of Ladakh.

Besides Leh town, 17 other villages and two major establishments will be supplied electricity from this hydel project. The work progress on this project is slow because of the difficult working conditions and short working season. The nearest railway head is about 800 Kms away at Jammu-Tawi and transport costs are prohibitive and the time taken many weeks. It will be the highest hydel station in the country being at a height of over 12000 feet.

Uri Hydel Project

The merit of this project is that it maximises to harnessing of potential of river in its reach. This is proposed to harness

the power potential of river Jehlum down stream of Pringal (LJHP). This will have an ultimate installed capacity of 600 MWs to be constructed in two phases each of 330 MWs. Six generating units of 110 MWs each have been proposed. The cost is estimated at Rs. 207.82 crore to be completed in 9 years.

Kishtwar Hydel Project

The Dul Hasti Power Project in Kishtwar will utilise the waters of Chenab at a place "Dul" upstream of Kishtwar. The proposal is to instal three units of 115 MWs each—a total installed capacity of 345 MWs in the first phase and is also likely to be taken up for execution by the Centre. The cost involved in completing the first phase is estimated to be Rs. 146 crore. It will generate electricity at the cost of 5.9 paise per unit.

New Power Projects

The State of Jammu and Kashmir is blessed with a vast hydel potential. But only a fraction of this stands harnessed. As such, surveys and investigations to identify hydel potential and to prepare project reports based on the techno-economic studies has been taken up. For this purpose a separate wing has been put incharge of identification and investigations of new hydel schemes. Surveys conducted have identified a hydel potential of the order of about 5,370 MWs and further investigations are in progress.

An allocation of Rs. 65 lakh has been made for surveys and investigations and Rs. 14 lakh for other works. During 1975-76 and 1976-77 Rs. 51.33 lakh and Rs. 45 lakh respectively were spent on the investigation of the new schemes. Besides Rs. 25 lakh for the year 1976-77 and Rs. 15 lakh for the year 1977-78 were arranged from Government of India as aid for the purpose. During the past two years Rs. 1.36 crore have been incurred for this purpose. However, due to paucity of funds the spread of investigations has been restricted to the following schemes only :

Uri Project

The Uri Hydel Project site is about 100 Kms from Srinagar on the Srinagar-Uri National Highway. It utilises a drop of 257 metres in a river length of 16 Kms to generate 480 MWs of power with a discharge of 8000 cusecs. The biggest component of the project is the head race tunnel which is about 10 Kms long. However, 5 working faces are available and the project can be completed within six years from the commencement of the project. It will generate 2800 million units in a year with a capital cost of Rs. 240 crore (Rs. 224 crore for main project and Rs. 16 crore for transmission system upto pooling point in the Northern Grid).

Upper Sindh Stage-II

The project site is 39 Kms from Srinagar on Srinagar-Leh road. The project envisages taking off canal from tail race of Kangan Power House. A canal from Wangat to Kangan for utilising water of Wangat Nallah has also been provided. The total length of the canal is 24 Kms. It will have an installed capacity of about 30 MWs and is estimated cost Rs. 21.5 crore. The project is proposed to be completed by 1982-83. The scheme stands almost investigated and the project report is expected to be submitted to the Central Electricity authorities shortly.

Gangabal Hydel Scheme

The scheme envisages utilisation of the storage capacity of 60,000 acre feet of the Gangabal Lake for power generation during winter. This will help in reducing the gap between summer and winter generation. The head available is about 4,800 feet which is proposed to be utilised by constructing a tunnel from the bed of the lake to the power house site. As per preliminary estimates the scheme will cost Rs. 35 crore. The generation capacity of the project is 100 MWs for 100 days in winter. An amount of Rs. 10 lakh is provided for the current

year for meeting the expenditure on infrastructure and communications.

Gurez Hydel Scheme

The scheme estimated to cost Rs. 68 lakh is envisaged to have an installed capacity of 600 KWs. The scheme has been necessitated because of the fact that supplying power to this bad pocket from the State grid will be too expensive. For the transmission lines to connect the area will have to pass over high snow covered mountains and areas prone to avalanches in winter. Besides making it extremely difficult to maintain the lines for reliable power supply, the cost of power supply will be high in view of these facts. The project is proposed to be completed in five years.

Sewa Hydel Project

The proposed Sewa Hydel Project in block Bani of Tehsil Basohli, one of the most backward areas, is sure to give fillip to the economic growth in the area. Out of all the minor projects identified in the Jammu Province, this Nallah has the biggest potential. A hydel scheme with a potential of 48 MWs is under investigation at present.

The terrain is difficult and the project site is deficient of access. It is essential to construct an approach road to power house a site at Patyarna from Sander (20 Kms). Only about 6 Kms, of the approach road is nearing completion. An allocation of Rs. 25 lakh has been made for the current year for pre-construction works on approach road and hutments. The approach road will cost Rs. 2.31 crore.

The drilling at these sites will be started in September, 1979, and it is expected to complete the investigations and formulate the project report by August, 1980. Subject to clearance of project, it is proposed to start construction in the year 1980-81.

Kirthai Scheme

The investigation on Kirthai Hydel Scheme in Chenab basin is in progress. The scheme is proposed to have an installed

capacity of 1150 MWs. This will be only scheme in the State where storage on river Chenab shall be made to the extent permissible under Indus Water Treaty. The storage will help in framing up of power generation from all down stream Hydel Projects on river Chenab.

Parkhachik Hydel Scheme

The proposed Parkhachik Hydel Scheme on river Suru in Ladakh division with an installation capacity of 21 MWs for the summer discharge of 400 cusecs is estimated to cost Rs. 50 crore. The scheme envisages construction of a weir across river Suru, at Parkhachik to divert the flow through a 4 Kms long tunnel across the mountain and thus providing a gross fall of 967 feet to the proposed power house at Thulus village (opposite village Panikhar). The topographical and hydrological surveys are nearing completion. The underground exploration has started. Some investigations at barrage site and tunnel alignment have already been made. The investigations are proposed to be completed by March, 1982.

Dul Hasti Project

The project on river Chenab has been fully investigated by the Central Water Commission. The project is located in Kishtwar and will have an installed capacity of 390 MWs. The Government of India has agreed to take up the project immediately in the Central Sector.

The investigations of Mundi Hydel Scheme, Parnai Hydel-cum-Irrigation Scheme, Sonamarg Storage Scheme, Lidder Hydel Scheme in Jehlum basin (Kashmir Valley) are in progress. The generating capacity of these schemes are envisaged at 15 MWs, 20 MWs, 150 MWs and 124.5 MWs respectively. In the Chenab basin (Jammu Division) 4 schemes namely Kalnai-Kuligad Hydel Scheme, Neru Hydel Scheme, Bichlary Hydel Scheme and Ans Hydel Scheme with generating capacity of 56 MWs, 40 MWs, 46 MWs and 37 MWs respectively are under investigation. The Dhumkhar Hydel Scheme with generating

capacity of 16 MWs in the Indus basin (Ladakh) is also under investigation.

The cumulative effect of the various programmes and measures has led to collecting of larger revenue which has gone up four times from Rs. 3.58 crore in 1974-75 to Rs. 12.49 crore in 1980-81 as shown below :

Year	Amount (Rs. in crore)
1974-75	3.58
1978-79	7.52
1979-80	8.33
1980-81	12.49

Cost and Returns

Costs and returns is an important aspect of power development strategy not only of our State but of country as a whole. The idea of controlling and reducing the costs of generation of electricity has, assumed a great importance for the power generation and distribution. The Government of India has shown a great concern over the rising costs of electricity generation despite great advancement in technological development and constituted Power Economy Committee in 1969 with the objective of suggesting measures for reducing the costs and reviewing the economics of power generation from different sources—hydro, thermal and nuclear so as to utilise the most economic source of energy. It has been found that costs of hydro energy generally change directly in proportion to the investment costs and are relatively unaffected by the load factors at which they operate. On the other hand, costs of generation of thermal power depend upon a number of factors like investment costs, fuel costs, thermal efficiency, distance of power houses from Collieries. A study by PEC revealed that construction costs of hydel project ranged between Rs. 1000 and Rs. 1500 per KW of installed capacity.

The cost per KW of energy at an investment cost of Rs. 1500 per KW worked out to be 2.14 paise/unit in 1960(s) at the interest rate of 6 per cent. The cost of generation would rise to 2.85 per unit if the investment cost is Rs. 2000. The actual cost of generation from hydro stations ranged between 88 paise to 3.6 paise against the expected cost range of 2 to 3 paise. The costs of generation are worked out on the basis of actual expenditure incurred on O&M, depreciation, administrative expenses and interest on depreciation.

It is found from the study of the pooled costs generation in 1968-69 that pure hydro costs varied between 1.66 p/KWh to 3.50 p/KWh, pure thermal generation costs ranged from 6.37 p/KWh to 8.54 p/KWh and mixed hydro thermal ranged between 4.5 to 6 p/KWh. Pure thermal stations have the highest costs of generation and so generally the highest tariffs. On an average, the cost of hydel generation is 2 paise/KWh and the cost of energy sent out of thermal station is 8 p/KWh. Moreover, the economic advantage of electric transmission go on increasing more and more with every rise in the prices of coal and rail freight.

In fact it has now been accepted that quickest the implementation of the project the less the cost. We find that in India, the investigation and its clearance for construction is a very time consuming process and the actual construction period of a hydel power house is normally 4 to 5 years.

In our State, not only the investigation period is long but also there are frequent delays in the construction work. Let us take the example of Salal Hydel Project. Previously it was hoped that the project will start generating power in 1978-79 but now it has been delayed by many years. Such delays are responsible for frequent cost revisions in upward direction.

In the case of large Hydro Projects where natural drops are not available, "heads" have to be created artificially by the construction of large dams and thus these projects required long "gestation periods". Unexpected geological difficulties which necessitate design changes and inadequate financial provisions prolong the construction period. As far as the relative costs of energy generation between hydro, thermal and nuclear alternatives are concerned, hydel schemes have established

themselves as the cheapest source of electric generation in India. Capital outlays on Hydel Projects are comparable to Thermal and in many cases even lower than thermal per KW of capacity. The Power Economy Committee of 1969 constituted by the Government of India, has commented that government failures to exploit hydel resources at a faster pace coupled with country's resort to large thermal projects has attributed to rise in cost of energy by 5.6 paise per unit. Our State's performance of resorting to only hydel projects on a large scale is worthy of commendation. There is a very insignificant power generation from new sources like Thermal, Diesel etc. Moreover, our State Government has opened a new department known as Civil Investigation which is being headed by a Chief Engineer. This department comes under Power Development Department and is expected to avoid delays in the investigation process.

The Power Economy Committee declared that during the Fifth and Sixth Plans, the bulk (about two-thirds) of new generating capacity to be added must be produced from the exploitation of hydel resources. This is indispensible for reducing and controlling cost of generation drastically. It will not be out of place to mention here that higher hydro capacity in India's Power system affords two-fold savings—savings on fuel costs due to lower proportion of energy generation from thermal sources and savings on other annual charges due to lower depreciation and O & M expenditure at hydro electric stations.

From the above discussion, it becomes quite clear that only hydro generation can help in the reduction of costs. We will now take into account expenditure made by the State Government on power generation since the advent of Planning. There should be no doubt that our State is trying its best to accelerate the pace of power generation. A high proportion of financial resources is being spent for power development. The progressive increase in outlays on power generation both in terms of total outlay and the percentage of expenditure on power to the total Plan outlays has been shown in the Table 7.4.

TABLE 7.4

Increase in outlays on power generation and plan expenditure

Plan Year	Total Plan/Year Expenditure (Rs. in lakh)	Percentage increase over previous Plan	Power Plan/Year Expenditure (Rs. in lakh)	Percentage increase over previous year	Power outlay as %age of total outlay
1st Plan	1151.71	—	272.82	—	17.6
2nd Plan	2594.75	125	353.84	30	13.6
3rd Plan	6185.09	138	906.50	157	14.6
Annual Plans :					
1966-67	1692.24	—	467.60	—	27.8
1967-68	2043.03	—	515.25	—	25.2
1968-69	2293.26	—	575.48	—	25.0
4th Plan :					
As per original estimates	15840.00	156	4009.00	344	25.3
As per recent re-appraisal	17694.52	185	5041.00	545	28.5
5th Plan (Max. of three alternatives)	38571.00	143	13000.00	224	33.50
		118		157	
6th Plan (Max. of three alternatives)	69333.00	80	20800.00	55	30.00
7th Plan (Max. of three alternatives)	108400.00	56	27100.00	33	25.00

Utilisation and Per Capita Consumption

Power generation creates demand for power. The old practice of estimating future demand on the basis of past data will have to be given up. The utilisation and growth depend, in addition to other things, on the location and vocation of the people.

Whereas we are very happy that our State has huge hydel power potential but we have harnessed only a small fraction of this potential so far. Our State is lagging behind than other States in the consumption of electric power. The per capita consumption of electric power increased from 3.94 units in 1947 to 27 units in 1963-64. The corresponding figure for India as a whole at that time was 55 units.

In 1966-67, the annual per capita consumption of electricity was 38.85 KWh. This was a little more than one-sixth of then per capita power consumption of 205 KWh in Delhi and one-third of the 114.3 and 101.6 KWh in West Bengal and Punjab. But we were in a better position when compared to Rajasthan and Uttar Pradesh whose figures were 21.4 and 29.9 KWh respectively. The annual all India per capita consumption was 66.9. The break up of above per capita consumption of 38.85 KWh was as shown in Table 7.5.

TABLE 7.5

Break up of per capita consumption

	KWh	Percentage
Domestic lighting and Small Power	11.30	29.1
Commercial lighting and Small Power	3.11	8.0
Industrial lighting and Small Power	22.77	58.5
Water Works Lighting and Small Power	0.85	2.2
Public Lighting and Small Power	0.45	1.2
Irrigation	0.37	1.0

The figure of per capita consumption in the domestic sector ranked third after Delhi and West Bengal respectively. The per capita consumption in the Industrial field was only just more than 50 per cent of all India average.

In 1972-73, per capita daily consumption figures stood at 42 units against all India figure of 90 units. In 1975-76 per capita power consumption rose to about 48 units as against all India average of 100 units. We feel shy when we only think of comparing our figures with the figures of other countries. In Norway and Canada this consumption is of the order of 12000 to 13000 units. Even in such a comparatively backward country like Portugal, it is about 600-700 units. In 1990-91, the per capita consumption is expected to be of the order of 791 units provided schemes envisaged for implementation in next 20 years are completed.

A low rate of electricity consumption is a consequence as well as the cause of the backward economy of the State. We have to raise per capita consumption of power if we want to accelerate the tempo of economic development in our State thus in transforming the subsistence economy into a stable and sound economy.

Rural Electrification

The work on an accelerated programme of electrification of rural areas has been taken into hand only recently. The task set forth before us is that of bringing electricity as lighting and as power to thousands of villages including homes and streets, fields and factories. The question of electrification was raised in All India Rural Credit Review Committee. The Committee discussed rural electrification in general and planned programmes for boosting agricultural production in particular.

Establishment of Rural Electrification Corporation

After accepting the suggestions of this Committee the Government of India constituted the Rural Electrification Corporation on 25th July, 1969. The Rural Electrification Corporation was entrusted with the task of carrying on a

Central Government Schemes making a provision of loan of Rs. 150 crore for Rural Electricity Cooperative Societies and State Electricity Boards in implementing the programmes of rural electrification. This was in addition to various other schemes started by the Government of India for assisting schemes of power development of various State Governments.

Rural Electrification and Rural Growth in J&K

Rural electrification has to play a very important and crucial role in the rural growth especially in a backward State like Jammu and Kashmir. There is a dire need of electrification in boosting the rural economy, particularly, in respect of the Kashmir Valley, Upper regions of Jammu and Ladakh where there is near hybernation of productive activity during the winter. We have to find means and ways of removing this constraint. Our State is in a state of vicious circle of low level of income and consequently lack of resources for launching a vigorous efforts in giving a new life to the stagement of rural economy of Jammu and Kashmir State and thus in breaking this vicious circle of poverty.

A small beginning was made with electrification of Kathua, Samba, Lakhanpur and Ranbir Singh Pura in Jammu Division. Anantnag and Awantipura in Kashmir Division were electrified in 1954-55. The work on the rural electrification was started formally in the year 1956 but no tangible progress could be achieved till 1972-73 as till then rural electrification schemes were financed from the State resources. The growth of rural electrification has been discussed briefly and Table 7.6 will show the progress made in this behalf.

Rural electrification programme has been taken up quite intensively during the recent years and out of a total of 6,503 inhabited villages 5,208 stood electrified ending 1982-83 making coverage of 81 per cent. In addition 1805 hamlets and harijan bastis stand electrified. The extent of coverage of village ending 1982-83 is reflected in Table 7.7.

Another 270 villages were likely to be electrified during 1983-84 raising the coverage to 84 per cent.

TABLE 7.6

Growth of Rural Electrification

Sl. No.	Year	Jammu Division	Kashmir Division	Ladakh District	Total	Percentage of villages electrified to total inhabited villages
1.	1950-51	3	12	—	15	0.2
2.	1955-56	17	16	—	33	0.5
3.	1960-61	36	34	—	70	1.07
4.	1965-66	188	312	1	501	7.70
5.	1966-67	281	369	2	652	10.02
6.	1967-68	359	399	3	761	11.70
7.	1968-69	382	404	3	789	12.13
8.	1969-70	391	414	3	808	12.42
9.	1970-71	412	449	4	865	13.30
10.	1971-72	420	495	5	920	14.14
11.	1972-73	468	593	7	1068	16.42
12.	1973-74	644	736	8	1388	21.34
13.	1974-75	828	906	8	1742	26.78
14.	1975-76	1023	1052	17	2092	32.18
15.	1976-77	1293	2047	18	3358	51.63
16.	1977-78	NA	NA	NA	4024	—

Energy losses in the State are considerable. These occur on account of both technical and commercial reasons. Technical

TABLE 7.7

Number of villages and hamlets electrified in the districts

District	No. of inhabited villages	No. of villages electrified	Percentage of villages electrified	No. of hamlets electrified
Srinagar	200	197	98.50	27
Badgam	484	483	99.79	148
Baramulla	659	614	93.17	179
Kupwara	361	301	83.38	91
Anantnag	628	619	98.79	158
Pulwama	542	530	97.79	80
Jammu	1063	898	84.48	298
Kathua	536	464	86.94	230
Udhampur	617	404	65.48	195
Doda	652	307	47.09	171
Poonch	158	121	76.58	87
Rajouri	368	213	57.88	132
Leh	108	32	29.63	6
Kargil	127	23	18.11	3
Total	6503	5208	80.90	1805

losses cover losses of energy in the form of heat. This dissipation occurs during transformation and distribution of power. Under the other category fall losses on account of pilferage un-authorised and un-accounted for consumption. Various steps have been taken to reduce the losses. These include converting of 6.6 KV level to 11 KV level, construction/augmentation of sub-stations, metring of 11 KV feeders, monitoring and rationalisation of accounting and supervision etc. As a result the magnitude of losses has been reduced from 51.28 per cent in 1979-80 to

37.04 per cent during 1982-83. Vigorous steps are being taken to bring them down to the minimum. The reduction of losses during the past few years is indicated in Table 7.8.

TABLE 7.8

Percentage losses during the years 1979 to 1983

Year	Percentage loss		Average
	Kashmir wing	Jammu wing	
1979-80	61.38	41.18	51.28
1980-81	51.80	37.70	44.75
1981-82	47.70	31.07	39.38
1982-83	45.24	28.85	37.04

8

Irrigation

Irrigation has been an ancient practice in the State. The consciousness of the importance of irrigation as a means to achieve an effective breakthrough in the development of agriculture is reflected in the will and eagerness with which some canals were constructed in the past such as Martand canal, Zaingir Khul, Lal Khul, Ranbir canal, Old Partap canal and Jehlum canal. Even the plateaus at some places were brought within the scope of gravity irrigation for raising of paddy crop which with the passage of time have gone into dereliction. The paucity of resources has inhabited the effort to utilise as fully as possible the water potential available in various river basins having perennial sources for providing irrigation to dry areas for growing food and other crops for common consumption.

The aftermath of division of the country witnessed deterioration in irrigation as there was a sharp decline in the area irrigated immediately after 1947. The task for the Government was, therefore, to restore the irrigation to its peak. Along with it, it was necessary to extend irrigation by tapping natural resources in the shape of available water discharge in various river basins, for providing necessary infrastructures for agricultural development both for intensive and extensive cultivation.

Since agricultural production is largely dependent on the quantum of availability of irrigation facilities, concerted efforts have been put in towards development of irrigation, which has been declared as one of the priority sectors. Accordingly, the

financial outlays for irrigation were substantially increased to effectively utilise the available irrigation potential through executing various minor, medium and major irrigation schemes in the State.

The most salient feature of the irrigation development programme in the State is that attention is being paid towards providing irrigation facilities to backward and remote areas to enable the people there to irrigate their lands to the extent possible and thus increase food production.

Development under Plans

In fact Development of Irrigation in Jammu and Kashmir State has a history of its own. The zamindar especially in Kashmir Valley has shown special ingenuity in taking water to every patch of land which was within the scope of resources available to him, irrigable by the gravity system. However, the major and medium schemes and such of the smaller ones as were not within the zamindar's competence (either on account of technical knowhow or on the basis of cost) storage tanks, ground water schemes and sprinkler works fell to the share of Government. Again depreciation and neglect of most of the zamindari khuls necessitates their take over, remodelling and maintenance on technically sound lines by Government and out of a total of 2827 zamindari khuls in the State 259 have been taken over.

The role of the Government, however, was very limited in the earlier years. The development of irrigation resources on Government level in a big way started after independence only. Schemes were taken up both for creation of new potential and for stabilization of the existing resources. The schemes are taken up in two groups viz., the Major/Medium schemes and the minor works. The progress of expenditure has been as shown in Table 8.1.

There has been a total investment of Rs. 10,980 lakh on the development of irrigation since 1950-51 to 1980-81. Of this, Rs. 2,639 lakh only was spent from 1950-51 to 1973-74. The remaining amount of Rs. 8,341 lakh viz., 76 per cent was spent from 1974-75 to 1980-81 in seven years only. Then

TABLE 8.1

Amount spent on schemes

(Rs. in lakh)

Period	Major		Medium		Total	
	Outlay	Expenditure	Outlay	Expenditure	Outlay	Expenditure
1	2	3	4	5	6	7
1st Plan	268.68	215.28	—	—	268.68	215.28
2nd Plan	239.45	97.89	256.00	95.82	495.15	193.71
3rd Plan	243.93	158.67	123.09	99.84	367.02	257.51
Inter Plans	58.50	63.93	219.19	460.70	277.69	524.63
4th Plan	566.00	662.09	764.00	785.76	1330.00	1447.85
5th Plan	3472.35	2443.60	1788.46	1210.01	5260.81	3658.61
1978-79	1207.00	943.91	620.00	493.81	1827.00	1437.72
1979-80	1050.00	822.77	620.00	682.22	1670.00	1504.99
1980-81	1050.00	1060.00	680.00	680.00	1740.00	1740.00
Grand Total	8155.91	6473.14	5070.74	4507.16	13226.65	10980.30
6th Plan (1980-85)	6094.00		4450.00		10544.00	

again 6th plan alone provides for an outlay of Rs. 10,594 lakh viz. Rs. 6,094 lakh for M/M irrigation and Rs. 4,450 lakh for minor irrigation only.

The physical achievements have been remarkable. The net area irrigated in the State has gone up from 2.61 lakh hectares in 1950-51 to 3.05 lakh hectares in 1978-79. Correspondingly, the gross area irrigated has moved from 2.63 lakh hectares to 4.05 lakh hectares. The growth of irrigated area in the State is shown in Table 8.2.

TABLE 8.2

Area irrigated in J&K

(Lakh hectares)

Year	Gross	Net
1950-51	2.63	2.61
1955-56	2.99	2.90
1960-61	3.08	2.74
1965-66	3.01	2.78
1970-71	3.23	2.73
1974-75	3.55	2.95
1980-81	3.92	3.04
1982-83	4.05	3.18

It will be seen that the gross area irrigated has moved up much more than the net area irrigated. This shows that there has been great improvement in stabilization and availability of water in all seasons and the area irrigated in more than one season has gone up from a nominal 0.02 lakh hectares in 1950-51 to 0.60 lakh hectares in 1974-75 and 1.01 lakh hectares in 1978-79. The area irrigated by sources managed by the Government is either the additional or that taken over for stabilization and remodelling. This area has steadily moved up. The growth of this area is shown in Table 8.3.

TABLE 8.3

Growth of area by irrigation

Year	Minor Irrigation			Major & Medium Irrigation			Total		
	Potent.	Utilisation		Potent.	Utilisation		Potent.	Utilisation	
		Net	Gross		Net	Gross		Net	Gross
1	2	3	4	5	6	7	8	9	10
1977-78	1.29	0.96	1.18	0.91	0.51	0.90	2.20	1.47	2.08
1978-79	1.37	1.02	1.22	0.91	0.51	0.91	2.28	1.53	2.13
1979-80	1.43	1.05	1.31	1.05	0.57	1.05	2.48	1.62	2.36
1980-81	1.47	1.07	1.33	1.16	0.63	1.07	2.63	1.70	2.40

New Projects

Creation of new potential in the Government sector is mostly done in the major and medium sector and a special mention is deserved by that sector. We have a number of schemes in the major/medium sector. 15 schemes with ultimate potential of 1.36 lakh hectares already completed are under modernisation. 12 other schemes with ultimate potential of 0.42 lakh hectares are on going and a potential of 0.06 lakh hectares was likely to be created ending 1980-81. In addition the Ravi-Tawi Irrigation Complex the two prestigious schemes with a cost of Rs. 53 crore has also achieved a potential of 0.67 lakh hectares. 12 fresh schemes with the ultimate potential of 0.59 lakh hectares are proposed to be taken up.

Important schemes in hand which have already started giving results are shown in Table 8.4.

A brief description of new projects is given as under :

Banimulla Irrigation Project

The scheme envisages construction of a 10 Km long main canal taking off from Vashow Nallah, with a carrying capacity of 70 cusecs which shall, after running in this length bifurcate into branches. The right branch shall irrigate the land in Banimulla Valley and the left branch the lands in the villages of Khaloor, Chambgund etc. The scheme will provide irrigation to an area of 3872 acres during Kharif and 2472 acres during Rabi. The estimated cost of the project is Rs. 87.76 lakh.

Manual Zora Irrigation Project

The scheme envisages taking of a canal 13 Kms long from the left bank of river Ranbir near Kadalbal for extending irrigation to an area of 1409 acres during Kharif for growing of maize. The total cost is estimated at Rs. 44.00 lakh.

TABLE 8.4

Important schemes

(Rs. in lakh)

Project	C.A.A. ('000 hec)	Ultimate potential	Ach. 1980-81		Estimated Cost
			Pot.	Ut.	
Marval Lift Canal	6.48	11.23	2.20	0.24	560.00
Leta Pora Lift Scheme	1.80	3.20	1.20	0.10	330.00
Niu Karewa Storage Tank	3.40	4.56	1.50	0.25	263.00
Baramulla Irrigation Scheme	2.31	2.09	0.70	0.10	176.00
Manulzours Irrigation Scheme	0.56	0.56	0.27	0.04	70.00
Rajal Lift Scheme	1.64	1.43	0.52	0.12	319.00
Tawi Lift Canal	14.00	12.88	12.88	7.20	681.00
Ravi Lift Canal	31.80	53.28	6.00	6.00	4600.00

Rajal Canal, Rajouri

The scheme is estimated to cost Rs. 210.00 lakh and will, on completion and full development irrigate a gross area of 5000 acres in the backward area of Rajouri District. Investigation of the scheme has been completed and the project estimate is under formulation.

Ravi-Tawi Complex

The Ravi-Tawi Irrigation Complex symbolises execution of the grand concept which embraces the harnessing to the last drop, every available water resources of all the major rivers flowing between Jammu and Thein in the service of agriculture by creating irrigation facilities for the arid and backward belt of the division.

The first component viz. Tawi Lift Canal has already been completed at a cost of Rs. 711.00 lakh, thereby creating an irrigation potential of 12880 hectares (32,200 acres). The canal is at present irrigating 6000 hectares (15000 acres) of land which has ushered an era of prosperity for about 12,000 farmers of Bishnah and Vijaypur blocks of District Jammu. The area under irrigation will progressively increase to 32000 acres in the years to come.

The second component viz., Ravi Canal, envisages the utilisation of both the State's share of water of Ravi and the available for supplies from Ujh river. The main canal having a length of 76 kilometres, is to take off from the right bank of Ravi from Shahpur Kandi Barrage. The estimated cost of this Project is Rs. 5,000 lakh. The capacity of the canal is 1150 cusecs. This is a gigantic project and may be termed as "GARLAND CANAL" passing through the most arid lands and the foot-hills of Kandi belt between Lakhanpur and Vijaypur, along the National Highway in Kathua and Jammu districts.

The phase-1 of this component comprises construction of Ujh to Basantar. The length of the main canal in this sector is 34 Kilometres and that of distributories and minors around 150 Kilometres. This phase of the Project costs about Rs. 1,800.00 lakh. With the completion of the

barrage and the Ravi Canal upto Distributory No. 5 in this sector we are giving a start to utilisation of the water of river Ujh to create a potential of 6000 hectares (15000 acres) besides stabilisation of existing irrigation on Ujh Canal. These irrigation facilities shall be extended upto Distributory No. 11 across Tarnah Nallah near Dayala Chak by Rabi 1980 and across Bein Nallah beyond Distributory No. 12 including remodelling of Ujh Canal System up to Ucchal Nallah by Kharif 1981. The completion of main canal upto Basantar and distribution system in this sector shall create additional irrigation potential of 6000 hectares, creating a total potential of 12,000 hectares (30,000 acres) by Rabi, 1981. This shall mark the completion of phase Ist of this component.

The benefit in the shape of food production valued at Rs. 152 lakh per annum on full development of irrigation of 6000 hectares is as under :

Paddy	2800 MT
Wheat	9000 ,,
Other crops excluding fodder	7000 ,,
Total	18800 ,,

Similarly, the benefits in the shape of food production valued at Rs. 304 lakh per annum (376000 MT) would accrue on full development of irrigation of over 12000 hectares.

The construction of canal from Shahpur Kandi Barrage to Lakhanpur is linked with the completion of Thein Dam/Shahpur Kandi Barrage by the Punjab Government which is going to take about 10 years more. For ensuring quick benefits, an interim arrangement to augment the supplies of River Ujh in lean periods by constructing a lift station at Lakhanpur has been approved by the Government. This arrangement involves drawal of additional 200 cusecs of water as part of State's share from Kashmir Canal near Lakhanpur (Kathua) with a lift of 180 feet to feed the Ravi Canal. This additional discharge alongwith the available supplies in river

Ujh shall ensure irrigation of 27000 hectares (68000 acres) of land.

The work on this phase has also been simultaneously taken in hand and is expected to be completed by Kharif 1983. The annual benefits in the shape of food production shall increase from Rs. 304 lakh to Rs. 877.00 lakh per annum by the construction of this interim arrangement. The details of food production on full utilisation would be as under :

Paddy	23400 MT
Wheat	41600 ,,
Other crops excluding fodder	47000 ,,
Total	1,12,000 ,,

The canal works from Lakhanpur to River Ujh in the upper reaches and River Basantar to Vijaypur in the tail portion i.e. upto its link with Tawi Canal are at various stages of completion. The work of pumping equipment for Lift Station at Lakhanpur has been recently allotted.

The Ujh Barrage which is being inaugurated by you, Sir, is not only the Kingpin of the Ravi Canal Project but also the biggest and has the unique distinction of being first such structure in the State. The Barrage will not only pond up and raise the water level of river Ujh by 4.5 metres (14.75 ft.) but also facilitate entry of water of Ravi Canal which after having blended with Ujh water takes joint onwards journey into the Ravi Canal to quench the thirst of arid and parched land towards Jammu.

The Barrage consists of three bays of undersluice (2 bays of 8 metres each and third bay of 16 metres) and 18 spillways bays of 16 metres each. The total length of the structure is 336.75 metres (1170 ft.). The deepest foundation of the structure is 11.50 metres (38 ft.). The length and maximum height of guide bunds to contain the river between the structure is approximately 1600 metres (one mile) and 8-9 metres (28-30 ft.) respectively. The construction of the barrage has involved

execution of 2,90,000 M^3 of earthwork 91,000 M^3 of cement concrete of all grades besides consumption of about 5 lakh cement bags and 1500 MT tor steel of different sizes. The structure has been designed for a flood discharge of 7000 cusecs (247000 cusecs). This discharge is three times the maximum discharge of River Jehlum at Srinagar. The structure has been provided with Electrical Motor driven Radial Steel Gates. The total weight of steel consumed on Gates and connected accessories is approximately 1000 MT.

The Barrage shall have a cement concrete roadway on the top of the pier to provide vehicular traffic to facilitate operation and maintenance of the Barrage. This work is still under progress.

The Ravi Canal and Distributory No. 5 which is being inaugurated alongwith are lined channels designed with a view to economise the cost of construction and prevent loss of water through seepage which otherwise shall be utilised for irrigation dry lands. The canal alignment intersects a number of non-perennial flash, nallahs on which suitable drainage crossings have been provided.

Under phase III of the construction programme, the portion of the canal from Lakhanpur Lift Station to the Headworks at Shahpur Kandi Barrage shall be completed. On completion of the whole canal, therefore, a potential of 53500 hectares (1,33,000 acres) shall be created and additional food production valued at Rs. 187500 lakh per annum will be ensured.

Paddy	44200 MT
Wheat	96400 ,,
Other crops excluding fodder	97400 ,,
Total :	238000 ,,

The yearly expenditure on the construction of the project so far has been as under :

	Rs. lakh
Ending 4th Plan	4.00
1974-75	25.30
1975-76	94.40
1976-77	364.88
1977-78	605.73
1978-79	551.54
1979-80	509.68
1980-81 (Upto 15-6-1980)	55.00
Total	2210.63

The third and last component of this Complex envisages provision of irrigation facilities to the isolated blocks of higher areas on the hill-side of the canal by providing a series of small lift schemes. This work shall be undertaken after the completion of second component i.e. all the three phases of Ravi Canal Project. This would further ensure irrigation facilities to an area of about 8000 hectares (20,000 acres) at cost of about Rs. 400 lakh.

It is right to remark here that the construction of this Project is indicative of the desire of our Government to bring prosperity to the poor people in general and agrarian population in particular. It is the later who constitutes weakest section of the society. The time is not far off when greenery shall cover the parched and stoney faces of the land which we see around and along the National Highway, from Jammu to Kathua and thus the old persistent poverty of the poor shall yield to rice, full and happy life for them.

Recommendations of the Development Review Committee

The age old tradition of the local village community construction and maintaining Zamindari khuls is declining. Area commanded by private khuls has declined over the years. Very few new canals are reported to have been built by the village community in the last many years. Secondly, the irrigation potential created by the Government has not been fully utilised.

The Committee would like to suggest that any proposal for a mass take over of the Zamindari khuls is declining. Area commanded by private khuls has declined over the years. Very few new canals are reported to have been built by the village community in the last many years. Secondly, the irrigation potential created by the Government has not been fully utilised.

The Committee would like to suggest that any proposal for a mass take-over of the Zamindari khuls should be very carefully gone into. Firstly, such a course of action is clearly beyond the limited resources of the State. There are over two thousand khuls in the State and the cost of remodelling, maintaining and managing them could easily run into many crores. Secondly, there is an urgent need in the State as in the country to strengthen rather than weaken the age old tradition of voluntary development effort by the village community. Government should certainly assist the local community by way of material inputs and skills beyond its resources but by no means seek to supplant it and in the process discourage local initiative for self-help. In the context, Government's approach in undertaking only spot treatment works leaving the rest of the maintenance and management of a khul to the villagers is to be commended. Simultaneously, the Government should start a mass movement for constructing new Zamindari Khuls in the rural areas. Government should extend technical support and supervision and material inputs not locally available and leave the local community to do the rest. Given the mountainous character of the State and the limited financial resources of the Government a vast network of small Zamindari khuls has a bigger role to play in the agricultural development of the State than the large and medium irrigation projects in the Government sector. Considerations of social justice and balanced regional development also favour the khuls because large and maximum projects have hardly any role in the agricultural development of pockets of extreme backwardness like Gurez, Karnah, Tilel Valley, Mohore, Dodu-Basantgarh etc. In continuation of the same approach there is need for implementing a programme of

construction of farm ponds and irrigation tanks in rainfed areas.

The ultimate irrigation potential in the State has been estimated at 6 lakh hectares (major and medium 1.00 lakh hectares; minor 5 lakh hectares including 4.00 lakh hectares surface and 1.00 lakh hectares ground). Only a level of 3.01 lakh hectares has been achieved which shows that the State has still a long way to go.

Of late some lift irrigation schemes have been undertaken which involve substantial outlays. Lift Irrigation is considerably costlier than gravity irrigation both in capital and revenue expenditure. It consumes power which is already in short supply. Therefore, it should ideally be taken up only after all the potential for gravity irrigation has been fully exhausted. At best an exception could be made in respect of an area where the scope for gravity irrigation is nil. There is another possible opening for such schemes. The State is likely to have surplus power in the summer months. It could be utilised for energising lift irrigation schemes for areas which grow only the kharif crop and therefore need irrigation only during summer months.

It also appears to the Committee that much work needs to be done for utilising the groundwater resources. Wells irrigate only 0.024 lakh hectares of the area under irrigation although it is known that tubewell irrigation is possible in many areas of the State. Exploratory work being done by the Central Ground Water Board and the State Department of Geology and Mining needs to be accelerated.

9

Roads and Transport Development

Introduction

In Jammu and Kashmir State roads have added much importance in view of its mountainous terrain. A network of roads has linked the remotest corners and hilly areas.

In simple words there can be no contribution without a well organised and well knit road system to national income. Apart from economic development, a good road system is a must for a good and efficient administration and for the over all progress of the community in the social, cultural and political fields. This is more true in the case of Jammu and Kashmir state than perhaps in any other States of the Indian Union. The Jammu and Kashmir State has hardly any means of transportation other than roads. Whereas the river Jehlum in Kashmir is navigable by small boats and barges for a little length, there are hardly any navigable river in the Jammu region of the State. Excepting that the railway has now entered upto a few miles within the State boundary in Jammu region, it is completely non-existent in the rest of the State. For transport, therefore, the State depends entirely on "Roads".

The Jammu and Kashmir State abounds in rich forest covering over 8000 square miles of area. It produces lot of fruit, Kashmiri apple being famous all over the world. The State is a tourist paradise and presents to the tourist a bracing

climate. There is sufficient evidence of the State having a lot of mineral wealth including huge deposits of copper, bauxite, coal and lignite. The State's economic development, therefore depends, mainly on the successful exploitation of its forests and mineral wealth and an impetus to its tourist industry. Forests, it will be agreed, can be exploited profitably only after an easy access to them is ensured. Mechanised logging and establishment of a wood based industry is possible only when the forests are connected by a good road system. One of the main reasons why the State's mineral wealth has not been exploited so far as is evident is the inadequacy of communication. The mineral deposits are difficult of access but even if man were to reach the deposits, it is well nigh impossible to carry the necessary tools and to tackle the site without roads.

Although tourism is one of the major industries of the State, yet it is far from being developed to the full extent. Only a few p'aces of tourists interest have been opened up but a good network of roads if provided will increase the tourist traffic to different health resorts in the State, which will certainly result in a boom to the industry.

The State of Jammu and Kashmir still imports some quantity of foodgrains from other parts of the country and all attempts are being made to achieve self-sufficiency in food. For the development of agrarian economy a system of roads, particularly those serving rural areas, is one of the basic requirements. Farm produce depends to a very large extent on the case with which a variety of input can reach the site and resulting produce move out to the centres of consumption. It has also been noticed that switch over to modern methods of cultivation depends largely on the proximity of the area to an all weather road. Mobility, therefore, is a key factory to the whole development programme and brings to focus the need for a well laid network of roads.

Historical Development

If we turn the pages of history of road development in the Jammu and Kashmir state we find that during Dogra

period there were mainly few roads which acted as the life line in the State. The development of roads under the Dogra rulers has been briefly discussed as follows :

The first route was made suitable for vehicle traffic was the Rawal Pindi-Srinagar route known as the Jehlum Valley Road. But pre-occupied with his responsibilities Maharaja Gulab Singh founder of Jammu and Kashmir State could not do much to improve the state of affairs.

Under the period of Maharaja Ranbir Singh the construction of the Jehlum Valley road has already started. The B.C. Road between Jammu and Srinagar had also started with bridge over the Chenab at Ramban. The bridge was built when over 2 ton motor vehicles were unknown but it has existed upto this day inspite of heavy traffic. Maharaja was popular and zealous for reforms but he was handicapped for not having the capable officials of immense labour, required to eradicate the terrible effects of many centuries of misgovernment.[1]

While Maharaja Partap Singh's forty years reign was epoch making the greatest contribution of the Dogra rule in Kashmir is evinced by the construction of two trunk roads mentioned above which were completed in his time. These roads created a nucleus of communication with British India which was badly lacking till then. In 1890 the road from Baramulla to Kohala was opened to cart traffic and the immediate result was that trade developed to certain extent on the Banihal and Pir Panjal routes.[2] The Jehlum Valley road covers a length of 132 miles from Srinagar to Kohala Bridge and B.C. Road covering a length of 203 miles was completed in 1922 at a cost of Rs. 43 lakh. Bridges were constructed at Domel, Kohala and other places.

By 1914, detailed survey of Jammu and Srinagar Road was made. The construction of this road started in 1916 and by 1920 it was thrown open to vehicular traffic.

During 1921-22, the reflooring of the Tawi suspension bridge Jammu was completed at a total expenditure of Rs. 23043,[3] against the sanctioned estimate of Rs. 24805. While the linking of Nandni Tunnel was completed at an outlay of

Rs. 13811 against the sanctioned estimate of Rs. 15000 during the year 1936. The grant of Rs. 7022 was also sanctioned by the imperial government for the construction of lower road from Astore to Dayam.[4]

Further in the year 1936-37 the Engineer of Francoies Works Ltd. were invited to examine the site of the proposed low level Tunnel under Banihal pass and to express their opinion on this project.

After discussing this brief historical background of road development in the State it is right to say that during Dogra rule, special attention was paid mainly on 3 trunk roads which are follows :

Banihal Cart Road

Formerly it used to be His Highness's private route connecting Srinagar with Jammu across the Pir Panjal through Ramban, Batote, the drainage area of Chenab in its upper course in the mountains of Doda and Bhaderwah. The first tunnel at a height of about 9,500 feet no more in use now because of Jawahar Tunnel at a low level, remained snow bound for about five months in winter which stood in the way of keeping this road open throughout the year.

The Banihal Cart road with all other link roads was maintained in a fair state of repairs. In summer months the Banihal Pass was kept open till November when snowfall would block the way for about five months. A sum of Rs. 2 lakh was spent to maintain and improve this road from Khanabal to Jammu. The Banihal Pass, owing to its low elevation, has always been an easy and convenient route towards the upper Chenab Valley and Eastern hills of the Punjab. It took its modern name from a village at the south foot of the Pass which is mentioned in Kalhan's Rajtarangini.[5]

Jehlum Valley Road

This road enters state territory at Kohala. It is regarded as an engineering wonder. It follows the river Jehlum from Srinagar to Baramulla where the Jehlum narrows itself

into a mountain before it leaves the valley. Not navigable beyond this point, the road rises on the winding spurs of the mountains to the Uri Gorge now a vital point of strategic importance on the ceasefire line. Through Garhi it reaches Domel near Muzaffarabad where the clean blue waters of Kishanganga joint the Jehlum river at Domel. This road takes a bend to the west till it reaches Kohala where the bridge on the river marks the boundary of the State and Pakistan. The road rises higher and higher to the crest of the Murree mountain and on south it slopes down to Rawalpindi. Being well maintained and open throughout the year this road had all the advantages of travel and therefore, carried the bulk of imports and exports.

After Pakistan invasion in the year 1947 this important highway suffered and it became a military road for Pakistan beyond Uri, thus an internal highway for the economic development of the Kashmir Valley, and also the chief means of communication and transport for the defence of India on this side of the border. No more if any economic importance, this road remains the main and efficient network of auxiliary roads to the east and west on the south. This road had been maintained in good state during Dogra Rule and 132 miles distance from Srinagar to Kohala was the direct responsibility of the Jammu and Kashmir Government.

Gilgit Road

Beyond Tragbal at a height of 9000 feet above sea level starts the much talked of Gilgit Road, another engineering wonder of the world. Originally a military road to considerable importance constructed by M/s Spadding and Co. and covering a distance of 240 miles this strategic highway made history in the early years of present century. The road was completed in the year 1893. Beyond Gilgit, through Hunza, Nagar and Misgarhman continued to be the beast of burden assisted by Yak to bear heavy loads. In such high mountains movement is difficult in cold, craggy paths leading to the slopes of the Pamir plateau beyond which lies the republics of the union of Soviet Republics of Central Asia.

Further to the north-west of Gilgit, the mountain path connects, Yasin, Ishukan, Gupis, Shergila and Dib with Gilgit, Misgarh and Kilik Pass, the Mintaka Pass and the Irshad Pass.

The district of Ladakh, an area of about 45762 square miles (1941) surrounded by the lofty Karakoram mountains and the province of Sinkiang to the east of the Tibet had the Leh road from Sonamarg, Baltal across the Zojila (11580 feet above sea level) through Machai, Drass, Kargil, to Leh. Leh was a centre of commercial activities where Caravans from Sinkiang across the Yarkan river came with their merchandise to be bartered with goods from India collected to Leh. The tourists and the travellers kept the Aksai Chin road alive with activity.

Minor Roads

The widening of roads, opening of new roads, metalling of roads, improvement of roads and construction of fair weather roads was followed according to need and usefulness of an area as shown below :

1. Construction of Kalakote and Jangar-Gali road for coal and to Reasi via Katra for pilgrimage and geological mineral surveys.
2. Construction and improvement of Jammu Akhnoor road for traffic, timber and maintenance of Ranbir Canal.
3. Construction of fair weather road from Naushehra to Rajouri for defence.
4. Construction of Uri Hajipir road nearer to Kashmir and the Punjab for traffic.
5. Construction of Pahalgam Chanderwari road to attract tourists for sight-seeing and pilgrimage to Amarnath Cave.
6. Extension of Boulevard from Kral Sangri to Nishat for scenic beauty of the Mughal gardens.

Even the remotest regions like Baltistan and Lingzi Tang (Aksai Chin) had communication and transport facilities as can

be seen from any map drawn before the year 1947. But a concrete step was taken in 1943 when the Government of India called a conference of all Chief Engineers at Nagpur to consider the ways and means of road development in future. The conference formulated a 20-year road plan known as 'Nagpur Plan'.

Development During Pre-plan Period

It was visualised that State would have an efficient system of road within the period of 20 years but the partition of 1947 frustrated many development schemes as a result of which the road length proposed in 1943 was reduced. But in order to achieve the objective laid down in the plans the Government of India came to the assistance of the State and undertook the construction of the road from Pathankot to Jammu. It was a huge project involving the spanning of River Ravi and a number of big and small Nallahs. Inspite of the attempt of the enemy to prevent the construction of this road, he was successfully kept at bay and the project was completed within shortest possible time. Thus the Highway from Pathankot to Srinagar and onwards to Uri was assured.

Moreover, in their march towards capital town of Srinagar and Jammu and on their retreat, the raiders had destroyed many bridges and damaged the roads. Later on the enemy was pushed back and the occupied area released from their grip. The engineers and workmen of the Pubilc Works Department went forward to re-establish their offices to construct new roads and bridges, both for military and civil needs. The personnel of this Department had to take great risks as very often the work had to be executed in forward areas even under enemy shellfire. But the difficulties and the risks involved the work was carried out according to plan and with a full measure of success. The magnitude of this development will be apparent from the following brief account during 1947-50.

In Kashmir 365 miles of existing roads were improved by re-alignment a road length of 110 miles was newly constructed.

The road from Shopian to Hirpora, Baltal to Zojila and Sunnerwari to Gurez were converted from bridle to fair weather road. Sholora Pharikian Jeep track road of 15 miles long was built from Baramulla towards Langet. 9 miles length of road was made motorable and Handwara Zachaldara, Handwara Sanzipora Parigal, Humer and Buniyar-Karoli roads were made jeepable. The hutments cost Rs. 44 lakh was made.

While in Jammu in order to cope with the heavy military and increased civil traffic, the Jammu-Srinagar Road was widened, improved and remetalled. The Tunnel of Khuninala was reconstructed. The other important improvement and construction works were the following :

(a) Akhnoor-Naushehra Road
(b) Jammu-Akhnoor Road
(c) Batote-Bhaderwah Road
(d) Kathua-Reasi Road.
(e) Jammu-Airfield Road.

The total cost of these works amounted to over a crore of rupees but the grant under road and building sanctioned for the year 1947-48 stood at Rs. 30.74 lakh only. As against this the amount provided in the budget grant for the year 1948-49 was Rs. 37.55 lakh indicating an increase of Rs. 6.81 lakh. The grant was further increased by an amount of Rs. 6.36 lakh in the budget for the year 1949-50 as per details given below[6] :

	Rs. in lakh
(i) Roads and Buildings Jammu	20,554
(ii) Roads and Buildings Kashmir	24,356
	44,910

This shows that 45.77% was allotted for Jammu and 54.23% was allotted for Kashmir which is higher than Jammu.

The following are the works which were proposed to be

financed by debit to the provision of Rs. 7,32,000 made under expenditure not charged :

(a) Improvement to Anantnag-Verinag Road
(b) Improvement to Achhabal-Kokernag Road
(c) Improvement to Srinagar-Nagam Road
(d) Fair weather road Handwara-Langet was improved
(e) Udhampur-Ramnagar Road was improved.

Plan Period

Prior to the commencement of Ist Five Year Plan in 1950-51, there existed 1704 Kms of roads in the State. Out of this the share of Jammu was 707 Kms and the Kashmir was 997 Kms The length of different types of roads in this total Kms of 1704 are as under[7] :

	Kms	%age
(i) Metalled/Shingled	550	32.28
(ii) Black topped	476	27.93
(iii) Fair weather	444	26.06
(iv) Jeepable	234	13.73
	1704	100.00

It reveals that the share of metalled/shingled constituted 32.28% and followed by 27.93% of Black topped, 26.06% of Fair weather, 13.73% of Jeepable Roads. The above classification of roads further shows that surfaced roads constituted 60.21% and unsurfaced only 39.79%.

But it will not be out of place to point out that before the commencement of Ist Plan out of the total Kms of road length, 41.49% was existed in Jammu and 58.51% in Kashmir.

The overall position of road length is shown in Table 9.1.[8]

Data in Table 9.1 reveal that in Jammu province the road length was increased from 707 Kms in 1950-51 to 1071 Kms by the end of the first five year Plan which included 49.96% of surfaced roads and 50.04% of unsurfaced, while in Kashmir Province out of the total length of 48.29% fall in the category of surfaced and 51.71% to unsurfaced roads.

TABLE 9.1

Road Length in J&K State

(In Kms)

	Surfaced	Unsurfaced	Total
Ist Plan			
Jammu	535	536	1071
Kashmir	817	875	1692
J&K	1352	1411	2763
IInd Plan			
Jammu	844	733	1577
Kashmir	1497	1200	2697
J&K	2341	1933	4274
IIIrd Plan			
Jammu	1297	672	1969
Kashmir	1835	779	2614

The position of roads became more sound by the end of IIIrd Five Year Plan because the road length in Jammu increased to 1969 Kms and 2614 Kms in Kashmir. In Jammu the share of surfaced roads was 65.87% and of unsurfaced road was 34.13% while in Kashmir we find that 70.20% of roads fall under the category of surfaced roads and 29.80% in unsurfaced roads.

Table 9.1 further reveals that by the end of Ist Five Year Plan there existed 2763 Kms of roads in J&K having 38.76% share of Jammu and 61.24% of Kashmir. In respect of surfaced roads Kashmir maintained a record of 60.43% and Jammu 39.57%. Similarly with regard to unsurface roads the share of Kashmir was 62.61% and Jammu was 37.39%.

During the IInd Five Year Plan the total road length share of Jammu went down as compared to Ist Plan. By the end of IInd Plan, Jammu got 36.90% and Kashmir 63.10%.

Table 9.1 also shows that Jammu lagged behind Kashmir in the distribution of roads of different categories.

Annual Plans

The Fourth Five Year Plan which was to begin in April 1966, actually started in April 1969, giving rise to year to year planning. The expenditure on roads has risen steadily during three annual plans as shown in Table 9.2.[9]

TABLE 9.2

Expenditure on roads during annual plans

(Rs. in lakh)

Year	Plan outlay	Expenditure
1966-67	224.50	220.34
1967-68	250.00	246.74
1968-69	238.00	269.85

The above mentioned financial structure reflects that 1.86% of plan allocation was not spent on Road Development Programme in 1966-67. The same case happened in II Annual Plan, where Rs. 246.74 lakh was spent against the allocation of Rs. 250.00 lakh, which means that 1.30% of plan allocation was also not utilised on road construction. But the case reversed in the year 1968-69 when a sum of Rs. 31.85 lakh was spent more than plan's allocation.

Present Position

The principal mode of transport for the State, therefore, is that of roads. The deficiency in the rail and water transport has to be compensated by an adequate network of roads. The need for according high priority to this sector of development flows from the size and topography of the State and the scattered character of the natural resources. However, we are far from achieving such network of roads yet. Road length maintained by the State Public Works Department per hundred sq. Kms of area is 9 Kms with 6 Kms only in the surfaced

category and even if we add surfaced road length maintained by the Departments other than State Public Works Department, such road length per 100 sq. Kms of area would be 11 Kms, which is one of the lowest in the country, the figure for all India during 1979-80 being 17 Kms. If we exclude Leh and Kargil districts, where most of the area is inaccessible and uninhabited, the road length per hundred sq. Kms for the rest of the area would not exceed 20 Kms.

The pattern of road length indicates advantageous position for Pulwama followed by Badgam, Jammu, Srinagar, Anantnag, Baramulla, Kathua and Kupwara. The other districts indicate comparatively poor road development. Road length maintained by the departments other than Public Works Department does not give districtwise break-up in some cases especially the MES which accounts for 62% of the kilometreage maintained by these departments. The position of various districts is likely to undergo slight variations when these data are compiled districtwise.

Though the road length is quite inadequate it was poorer earlier. The position has improved a lot during the past decade. The total road length under the charge of the State Public Works Department which was 7237 Kms during 1973-74 has gone up to 9482 Kms in 1982-83. Out of this road length 6898 Kms is surfaced and 2584 Kms unsurfaced, 4067 Kms is black topped, 1296 Kms metalled, 1535 Kms shingled and 2424 Kms fair weather, jeepable roads claim a share of 160 Kms only.

The road length maintained by the State Public Works Department is shown in Table 9.3.

National Highway under Central Government

The Jammu and Kashmir has only one National Highway entering the State at Lakhanpur to Uri via Srinagar. This road is the life line of the State. This road had originally to pass through an altitude of about 3048 metres but with the completion of Banihal tunnel the length has been reduced. The National Highway has an average width of 24 feet from Lakhanpur to Srinagar and the entire stretch is double lane. It is open to vehicular traffic from both directions.

TABLE 9.3

Roads maintained by the State Public Works Department

(In Kms)

Sl. No.	Year	Total Length
1.	1973-74	7237
2.	1980-81	8206
3.	1981-82	8507
4.	1982-83	9482
5.	1983-84	9644

Note : Excluding National Highway.
Source : P.W.D. Government of J&K.

At present, the maintenance of National Highway is in the hands of the Army organisation called BEACON.[10] Beacon are expected to undertake the widening, removal of plain curves, strengthening of the subgrades where necessary and bitumen beating of the road. When the National Highway has been brought upto a certain extent the Beacon will hand over the maintenance work to the State Government.

With only one route available for the entire traffic entering the State from Pathankot, the movement of the heavy vehicles was not smooth. Special machinery could not be moved on the road due to restrictions on moving dimensions. It was, therefore, decided to open another route from Punjab through Himachal to Udhampur. The New Dhar road has a length of 128 Kms. It is an inter-state road passing from Punjab, Himachal Pradesh to the State of Jammu and Kashmir.

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4. His Highness Report PWD for fasli year 1984-85
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10. Project Beacon, the first of the major project of border roads organisation which was primarily inducted into the state in May 1960 for construction of roads in and around Ladakh and who at this stage has to its credit construction of hundreds of miles of new roads besides the maintenance of the vital life line of the state i.e. National Highway—IA, was finally made responsible for the construction of this road.

10

Tourism

The State of Jammu and Kashmir is known the world over as the promised land on earth. Its scenic splendour, meandering streams, serene lakes, gushing brooks, snow-clad mountains and green pastures have all along attracted tourists from all over the world. Consequently, tourism has emerged as an important industry in the State.

The industry employs thousands of boatmen, porters, housemen and craftsmen. It provides livelihood to more than two lakh people directly and thousands of others indirectly. It also has vast potential to contribute to the State's economy.

Historical Development

From ancient times the State has a long tradition of tourism. It was king Ashoka who conquered Kashmir in about 250 B.C.[1] His own conversion from Hinduism to Buddhism led the Kashmir's gateway open for Chinese and various other travellers who wanted to quench the thirst of Buddhist and Sanskrit knowledge. Thus, Kashmir developed as a great centre of learning during the period. The first Chinese traveller to enter Kashmir was probably Chemong who entered the valley shortly after 404 A.D. Another Chinese traveller Fa-Yong left for India alongwith 25 Buddhist Monks in 420 A.D. The great Chinese traveller Hiuen Tsiang's visit in

631 A.D. was corroborated with this historical event.[2] He was followed by Yuan Chwang who visited the valley in 631 A.D.[3] During the reign of king Meghavanhana, queen Amritaprabha got constructed a 'Vihar' which was flourishing during the visit of another Chinese traveller Qu-kong to Kashmir in 759 A.D. Kashmir under the ruler of king Lalitaditya (754-61 A.D.) become the synagogue of foreign scholars and erudites and many cultural mission from other countries were received with respect.

In the medieval period, the travel period was widened when diplomats from overseas kingdom started to pour into the State. Mughal emperors initially developed it as a 'Summer Health Resort'.

The history of the development of tourism in the modern period may also be classified under two heads : viz., (1) Pre-independence period and (2) Post-independence period.

Development of Tourism in the Pre-Independence Period

The dawn of the British empire on the political map of India broke the 'isolation' of the State from the tourism point of view. The fame of the State as a beautiful land with a cultural heritage started to spread to distant corners of the world. The State acquired much significance with the expansion of the British power in North. The Britishers started to cast their eyes on it. Hence a large number of Britishers paid frequent visits to the State in the garb of visitors but the main purpose of these visits was to exert their influence on the people of the State.

During this period Sikhs were ruling over the State. Its ruler Maharaja Gulab Singh demonstrated great hospitality to the European visitors specially the Britishers.

During the reign of Maharaja Ranbir Singh, a path between Jammu and Srinagar was built. His court was visited by several learned scholars from all over the country. He used to make annual contribution for the upkeep of roads, inns and rest houses for the convenience of the travellers.

Actually Britishers discovered the State differently, exploring its every aspect during the last quarter of 19th century. About

the year 1888 Colonel Parry Nisbet was sent by the Viceroy to the State as British Resident to help the Maharaja to carry out the reforms in the State and amongst them was development of cart road from India to Srinagar, viz. Rawalpindi (now in Pakistan) which might open the gates of the State to outside world and made the access to the Valley of Kashmir easy and less tiresome.[4]

Among the various important Europeans including Britishers who visited the State in the 18th and 19th centuries, mention may be made of some distinguished ones like Forrestor (1783), Hopolyte Desidei (1714), Moorecroft (1822), Victor Jacquemont (1831), Baron Hugel (1835), Heckel (1838), G.T. Vigne (1842), Von Huegel (1844), Sir Walter Lawrence (1895), Cunningham, Father Gerome Xavier, Benoist-de-Gois, Thomas, John H. Lawrence, Captain F. Neve, Aurel Stein, Fredric Drew, Col. Godwin Austin, Tyndale Biscoe, A.A. Carl, T.R. Swinburg and also Lord Minto who visited Kashmir in the beginning of the present century, i.e. in 1906.

Impact of World Wars on Tourist Traffic

Correctly speaking popular tourism could not develop before the outbreak of First World War on account of the fact that prior to that a handful of visitors used to come on a trip to Kashmir by the relays of 'tonga'. The trip by 'tonga' used to last over two to four days depending on luck and weather. The visitors were mostly British officers serving in India, their families, government officials and Christian missionaries, all of them visited Kashmir to escape from the heat of the plains in summer.

The motor car developed with the War and by 1920 cars became popular and lovely means of transportation in the western world. It was not until the motor car reached northern India that the influx assumed important proportions. With the innovation the flow of tourists to Kashmir increased considerably with the passage of time when 'Maharaja', Rajas, Nawabs, courtiers of numerous Indian states and millionaires began to join the stream of tourists to Kashmir. Where visitors to the

State were previously numbered in tens. They now began to come in hundreds. Air travel had hardly passed the military stage in Europe at that time but it was not too long before the traveller could fly over the Banihal and see downwards the twisting roads descending into the bright green valley of the State.

The construction of the Banihal card road linking Pathankot with Jammu and Srinagar about six decades ago and the landing of an aircraft at Srinagar airport in 1925 for the first time exploded the hurdles and difficulties of the travel and threw open the doors of Kashmir to the ordinary tourist.

Upto 1921, the Banihal road was for the private use of Maharaja of Kashmir only and travellers had to obtain permit to travel over this road. But in 1922, the road was thrown open to public use which was a gift to Britith empire. Full internal administration of the State was restored during the reign of Maharaja Partap Singh. With the opening of this road, many former paths in the State were converted into roads for carry traffic and telegraphic communication was extended to all the important cities of the State including Gilgit and Ladakh. For the first time telephonic connection between Jammu and Srinagar was also set up in the same year.

The State which had remained in isolation for centuries had now come into close and direct contact with the rest of the country. One of the noteworthy effects of this was the increasing influx of European and home tourists to the State. The fame of Kashmir by way of its unique scenic grandeur, novel natural beauties and lovely cold climate had already reached far off lands. The prophecy of Vigne that "Kashmir will become the 'sine-qua-non' of the oriental traveller" was coming true. All possible efforts were made both by the State Government and the British Government to make Kashmir a lovely place in terms of the comforts and luxuries worth visiting by the Europeans. At this time, pressure was brought on the Maharaja of Kashmir to allow Europeans to acquire land in Kashmir with a view to make it a place for settlement of retired British officers. The move was strongly opposed by Maharaja. Due to lack of accommodation suited to Europeans and with pressure of increasing year after year, things were put to great

inconvenience. As the State Government did not allow them to build their own residences, the houseboats were constructed on a large scale to provide comfortable boarding and lodging to Europeans which provided fillip to the houseboat industry tremendously.

As a result of all these favourable factors, the number of tourists visiting Kashmir rose to 8,404 in 1931.[5]

Tourism in the modern sense developed after the outbreak of Second World War when the American soldiers who had plenty of money and who were stationed in West Asia and South East Asia started visiting the State in large number. The Americans carried the news of the State's beauty to different parts of Asia, Europe and the U.S.A. and as a result a good number of tourists from different lands began to come to the State. That is why 28,937 tourists paved into the State in 1940.[6]

Actually the real urge to travel merely for pleasure came only after the end of Second World War when it became a fashion in the western world to pass the vacation and leisure time by visiting the beautiful and historical places around the globe. Consequently, with the popularisation of speedy means of transport and communication the world witnessed the global explosion of tourism.

During the War, Kashmir became famous as the "Switzerland of Asia". Hence, people of a large number of nationalities made their way towards the State. The number of tourists went up to 29,326 in 1941.[7] The flourishing years of tourist trade reached its climax during the Second World War. During this period aeroplanes made their flights over the State for the first time on commercial basis and soon they became common and popular. Meanwhile the number of foreign and domestic tourists rose to 27,478 in 1943. Side by side winter sports at Gulmarg grew in popularity raising the number of tourists to 33,676 in 1944. Moreover, American War planes carried greater number of soldiers on leave into the State for rest and excursion thereby raising the flow of tourists to 37,297 in 1945.

Britishers developed regions like Gulmarg which had and still has a special charm for the foreigners. Pahalgam was also

developed by the orders of Maharaja Hari Singh, the nephew of Maharaja Partap Singh who succeeded him.

The increased influx of tourists had its own impact on the various aspects of life of the Kashmiris and every Kashmiri connected with the tourist trade directly or indirectly began to become prosperous. But the year 1946 witnessed a small influx of foreign tourists numbering only 6,652 as compared to 18,800 in 1945. The reasons were clear; the tourist generating continent 'Europe' was crushed by the Great War. The political map of the world changed.

The tourist traffic has shown considerable expansion both in case of Indians and non-Indians. The total number of visitors about 11000 in 1951 and 1.84 lakhs in 1975 touched the record level of 6.42 lakhs in the year 1981. The number of Indian tourists was about 5.98 lakhs and that of the non-Indians 0.44 lakh. The progress of tourist traffic is indicated in Table 10.1.

TABLE 10.1

Tourist Traffic from 1977 to 1984 in J&K

(Number of tourists)

Year	Home	Foreign	Total
1973	175769	20077	195846
1977	387817	54223	442040
1980	548491	46026	594517
1981	598555	43745	642300
1982	560979	42851	603830
1983	398428	41101	439529
1984	192680	36460	229140

An important point, however, is that the number of foreign tourists though gone up considerably has shown decline during the past few years from 0.59 lakh in 1978 to 0.41 lakh during 1982. Decline has also been noticed in the number of home tourists which is slight in 1982 but very large in 1983.

This, however, appears to be temporary phenomenon. The decline can be ascribed to global crises especially in the Middle East with special reference to the fisfortunes of Lebanon, the Persian Gulf and Afghanistan and to unfortunate events in the neighbourhood of the State. However, efforts are being made to recover the deficiency as possible. Foreign tourists coming to the State make a very small fraction of such tourists coming to India. In 1980 for example the number of foreign tourists in India was 8.00 lakhs out of which 0.46 lakh only came to the valley. This makes a fraction of 6% only. Efforts need to be made to attract a respectable number of the foreign tourists to this State. In fact we should endeavour to see that no foreign tourist coming to India leaves the country before having seen the Valley of Kashmir.

All attempts to boost the tourist traffic have continued and a large number of schemes have been taken up to improve the tourist facilities. 111 such schemes spilled over to the 6th five year plan. 68 more schemes were taken up during the first three years of the plan and after completing 45 schemes 116 old schemes spilled over to 1983-84 in addition to which a number of new schemes have been taken up. 46 schemes are likely to be completed during the current year. The schemes include the prestigious projects such as the convention complex at Srinagar, the recreation complexes at Srinagar and Jammu, the Nagin Club, the Jajjar Kotli Complex, all under progress. The status of each of these projects is indicated in Table 10.2.

Special efforts have been made to make standard residential accommodation available to the tourists and for this purpose accommodation has been constructed both in public and private sectors. The private sector has been motivated to come forward in a big way and share the effort. Substantial subsidy is being provided and as a result the total accommodation available in the two sectors has gone up from 14000 in 1978-79 to 27468 ending 1982-83 and is likely to be about 28000 ending 1983-84. In addition to accommodation, facilities of transport, sports, water supply, electrification and entertainment are being developed in all the tourist spots.

A preliminary estimate has shown that an average tourist

TABLE 10.2

Major projects of tourist development

(Rs. in crore)

Project	Anticipated cost	Expenditure ending March 1983	Like expenditure ending March, 1984
Convention Complex Srinagar	7.56	5.51	1.70
Recreation Complex Srinagar	3.95	2.92	0.76
Nagin Club	0.90	0.12	N.A.
Recreation Complex Jammu	0.85	0.66	0.05
Jajjar Kotli Complex	0.40	0.18	0.01

stays in the valley for a period of 7.04 days or say 7 days. The average daily expenditure has been worked out Rs. 166.26. Rs. 72.39 is accounted for by the purchases of various types including handicraft goods and fruit. The consumption expenditure including boarding, lodging and transport is about Rs. 93.87. Thus 44% of the tourist expenditure goes on purchases and the remaining 56% on boarding and lodging. Roughly the total spending made by the tourists in the State at 1982-83 prices would be as shown in Table 10.3.

The expenditure incurred had gone up two and a half times during 1973-83. Roughly 8% of the tourists are foreigners and the above expenditure, therefore, involves a foreign exchange earning of about Rs. 4 crore. The expenditure per foreign tourist being much higher than that of India tourist, the foreign exchange element would be higher.

TABLE 10 3

Estimated expenditure made by the tourists in the valley

Year	No. of tourists	Estimated expenditure (Rs. in crore)
1973	195846	22.92
1979	553747	64.81
1980	594517	69.59
1981	642300	75.18
1982	603830	70.68
1983	439529	51.45

Vaishnodevi Shrine

The annual fair on Navratra attracts lakhs of devotees of the Devi from distant corners of India particularly, from Uttar Pradesh, Haryana, Bihar, Madhya Pradesh, Maharashtra and Andhra Pradesh etc The pilgrimage is done during the three months onwards after the Navratra festival (Durga Puja days).

Amarnathji Shrine

Each year on the day of Sawan Purnmashi in the month of Shravan (July to September) when the moon is full, thousands of Hindu pilgrims gather before the Amarnathji Shrine in the picturesque Lidder Valley in Kashmir to offer their prayers to Lord Shiva.

It is difficult to say when this pilgrimage first started but it certainly dates back to hoary past. In an account of the pilgrimage in *Rajtarangini*, Kalhana, the greatest chronicler says that it was performed even earlier than 1000 B.C. in the time of king Nara. The 'Gupha' was discovered by one Rishi who obtained a 'Chhari' from Lord Mahadeva. The

sacred 'Chhari' is annually carried to the cave by the Mahant of Raksha Bandhan. The number of yatries coming to Vaishno Devi and Amarnathji Holy Caves is given in Table 10.4.

TABLE 10.4

Number of yatries visited Amarnath and Vaishno Devi temples

Year	Amarnathji Cave	Vaishno Devi Ji
1950-51	N.A.	0.03
1960-61	N.A.	0.06
1980	0.20	12.13
1981	0.20	12.13
1982	0.25	11.89
1983	0.21	12.83
1984	0.10	10.08

Financial Outlays

It is in view of this importance that the State Government has taken up development of tourist industry in the right earnest. Ending 1981-82 an amount of Rs. 25.81 crore has been invested into the industry. The progress of expenditure is reflected in Table 10.5.

The investment for the development of tourism has shown steady upward trend, the conspicuous feature, however, is that there has been a major jump in the expenditure on this important sector after 1974-75 when it got great importance, while the total expenditure during the two decades ending 4th Plan was Rs. 7 crore, the expenditure during the 5th Plana lone was nearly Rs. 6 crore. The expenditure during the subsequent years has been much higher and from 5th Plan in 1981-82 it has been three times higher at Rs. 18.80 crore. Even the annual allocation now is over half of the total investment during all the earlier years prior to 5th Plan. Development of tourism

TABLE 10.5

Amount spent on tourism

Period	Progress of expenditure on tourism (Amount spent Rs. in lakh)
Ist Plan	46.51
2nd Plan	51.68
3rd Plan	49.98
Inter Plans	62.10
Fourth Plan	490.90
Total ending 4th Plan	701.17
5th Plan	585.34
1978-79	292.13
1979-80	291.77
1980-81	325.50
1981-82	385.00
Total (1974-82)	1,879.74
1982-83 (outlay)	410.00
6th Plan Outlay	2,200.00

involves the development of facilities and incentives for tourists. The programme includes optimum utilisation of the existing capacity and provision of additional transport services, hotel accommodation, bed strength, water supply, electricity, etc. Liberal incentives for the development of these facilities are given to private sector which has come forth in a big way.

Impact of Tourism

Tourism may have both direct and indirect effects which are known as forward and backward linkages in the economy.

The many sides development of tourist resorts, construction of roads connecting tourist spots with the big cities, building of accommodation houses, developing various types of transport undertakings, establishment of handicraft industries, creation of communication facilities, installation of power stations and the encouragement of artists in the entertainment fields are a few of the innumerable areas for developing State economy.

The theory of economics of tourism reveals the fact that it has a great multiplier effect on the economy. It stipulates further economic activities over a wide spectrum in diversified form. The money spent by a tourist, however, is not exhausted in a single stroke. It has been estimated by the tourism experts that it may take 13 to 14 transanctions before tourist expenditure disappears, out of which 5 to 6 transactions take place within the first year. The money spent by the tourist goes into circulation and seeps through various channels of the economy such as accommodation, meals, beverages, internal transport, sight-seeing, entertainment, gifts and souvenirs, photography, personal care, drugs and cosmetics and clothing etc.[7] Thus, the money spent by a tourist circulates throughout the economy and stimulates it as it changes hands more than three to four times. It creates chain reaction in the economy and the constant turnover of the tourist expenditure is known as the Multiplier effect. The cause of this turnover is clear. When a tourist buys a silver necklace, the merchant orders a replacement. The necklace maker buys more silver from the market as more tourists buy. He has to employ additional hands. As employment increases, tea shops, food stores and cloth merchants get more business. Tourist spending acts as a boon to cottage and small scale industries manufacturing consumer goods wanted by the tourists. Where there are substantial leakages or slow turnover, the money spent by tourists seem to turn over between 3.2 and 3.5 times a year before it disappears. In more highly developed economics, there is less leakage and a higher limit, perhaps 4.3 would probably apply. The multiplier of 302 is the lowest that can be produced under any reasonably accurate set of circumstances. When the total of estimated expenditure by tourists is multiplied by 3.2 the result

is the minimum amount of business generated by tourists expenditure during a 12 month period. The figure, in effect is the amount of National or State income that is created by tourism.[8]

A tourism multiplier co-efficient of 3.2 for the State of Jammu and Kashmir, as assumed by the National Council of Applied Economic Research in connection with its "Techno Economic Survey of Jammu and Kashmir[9] may not be wide off the mark even considering that for the State the 'Leakages' may be slightly on the higher side because some of the goods and services on which the tourists spend money have to be imported from outside the State, e.g. foodgrains, butter, cheese, and raw materials for certain industrial products etc.

The State's Department of Tourism assumed a multiplier co-efficient of 3.5 in its Fifth Five Year Tourism Plan.

The effect of tourism to the State's ecomomy can be measured in terms of its contribution to the State's income.[10] The Tourist influx which poured in the State in 1978 was consisted of 4,43,342 domestic and 59,323 foreign tourists,[11] each spending on an average Rs. 481 and Rs. 838 respectively.[12] The total spending of 4,43,342 domestic tourists in the State in the year 1978, therefore, amounted to about Rs. 21,32,47,502 and that of foreign tourists to about Rs. 4,97,12,674 making a gross aggregate of Rs. 26,29,60,179. Since the tourist expenditurc generates economic activity between 3.2 and 3.6 times of the actual amount spent in State's economy in a period of one year, the income impact of tourists expenditure under our alternative assumptions about the multiplier co-efficient would be about Rs. 84,14,72,563 (3.2) and Rs. 94,66,56,633 (3.6) under the lower and higher multiplier assumptions respectively.

The contribution made by the pilgrims visiting Vaishnodevi Shrine in the form of their expenditure have a profound impact on the economy of the State. If we take the per capita expenditure of a pilgrim at Rs. 55/- as reflected by the survey piloted by the Indian Institute of Public Opinion, the aggregate expenditure of 8,81,812[13] pilgrims who visited the shrine for worship in 1978 came to about Rs. 4,84,99,660. The income finally generated by these expenditures were about

Rs. 15,51,98,912 (3.2) and Rs. 17,45,98,776 (3.6) under the lower and higher multiplier assumptions respectively.

The pilgrims visiting Amarnathji Shrine from outside the State who spend a lot in order to visit Shrine and pay worship, indeed, significantly contributes towards the development of the State's economy. In the year 1978, about 20,000[14] pilgrims visited the Shrine. If we take per head expenditure of Rs. 272[15] (on average) as disclosed by the survey piloted by the Indian Institute of Public Opinion, total amount spent by these pilgrims come to Rs. 54,40,000 which is an aggregate expenditure of the pilgrims. The income finally created by this expenditure was Rs. 1,74,08,000 (3.2) and Rs. 1,95,84,000 (3.6) under the lower and higher multiplier assumptions respectively.

Taken together, the total amount spent by all tourists and pilgrims in the State in 1978 amounted to Rs. 31,68,99,836. The final income generated by it was to the extent of about Rs. 1,01,40,79,457 (3.2) and Rs. 1,14,08,39,409 (3.6) respectively on the basis of the lower and higher multiplier assumptions, respectively, as a whole. It seems reasonable to assume that the income generated by tourist and pilgrim spending in the State forms about 10 per cent to 15 per cent of the State's income.[16]

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11

Industrial Development

Historical Development

Kashmir crafts have been popular since very earlier times. They were widely patronised by kings and emperors and the foreign merchants most especially after 16th century. From the middle of 15th century to the middle of 19th century Kashmir woollens specially the shawls enjoyed the same reputation the world over as the muslins of Dacca, brassware and brocade of Banaras and silk of Murshidabad. It will be no exaggeration to state that it was one of the most industralised part of the country between 1600 to 1860. The cottage craft reached the pinnacle of its glory in 1850. By this time the annual output of shawls alone is estimated to value at about Rs. 50 lakh. Whereas the decline of industries had set in other parts of the country, the process of decline started in Kashmir a little later. However, the decline was too sharp and continuous with the result that shawls which was the prized export article for about four centuries disappeared completely from the list of export of the State by 1890.

Even the abolition of taxes on shawls could not arrest the process of decline. The position of other crafts such as cotton textiles, namdas, pattu and other ornamental crafts was in no way better. This period of 1860-1890 may rightly be called as the period of economic and disintegration and the breakdown of occupational equilibrium.

Position could not improve upto the first quarter of 20th century inspite a few steps taken by the government to regenerate the industrial activities. The old industrial structure which was completely shattered could neither be rejuvenated nor replaced by a new and better organised industry of modern times. Kashmir could not elevate its industrial position inspite of the stray efforts made by the government to establish some organised industry like sericulture in the last quarter of the 19th century. The establishment of a new set of industries like woollens, drugs, rosin and turpentine, cricket bats, fruit canning, wicker works, fur tanning, food processing, Job work workshops and match factory could not improve the lot of Kashmir Industry. We may divide the period of 1890 to 1950 under two broad heads :

(i) the period of slow revival of cottage industries; and

(ii) the period of emergence of public sector.

The first period between 1890 to 1914 was a period of slow growth of industries. Government did not take any firm step to bring back the industrial activity on rails.

The second period which commenced with the outbreak of the first world war lasted till the eve of independence. During this period, some changes were noticeable in industrials activities with the operation of the public and private sectors. We shall discuss separately the development set in after the establishment of the popular government.

The industrial activity could not gather any momentum owing to absence of industrial policy and the firm commitment of the government to industrialise the State on proper lines. Sericulture was developed not because of the well designed industrial policy of the government, but because of the need to supply silk yarn to British industry, which was competing with Japan, China and Italy. Consequently, about 90% of silk yarn produced in the State was exported to England. Kashmir Silk Industry was superseded by Mysore Industry because it could not take the benefit of natural advantage possessed by it.

During the first period, though, no special efforts were

made to revive industry but decline in art and crafts was checked by two important factors :

1. Increased influx of visitors to valley, and
2. Swadeshi Movement launched by Mahatama Gandhi.

The movement created new demands in the country. Similarly the carpet industry received fillip owing to the demand created in U.S.A. The Silk Industry also registered progress during the period except for temporary setback in 1907-8. With the outbreak of First World War the process of recovery started. The Carpet Industry, however, continued to flourish during the Carpet Industry, however, continued to flourish during the period.

The State Government realised the potential of these crafts and initiated firm steps to organise the industries on sound footing. As a first step in this direction the Government established the Directorate of Industries in 1923. This effort of the State Government was supplemented further by All India Spinners Association which established a big production centre. This step saved the State industry from the ill effect of the world-wide depression in 1930s. The industry continued to function more or less limpingly till the outbreak of Second World War which provided a boon to Kashmir Industry. The existing industry flourished and simultaneously some new industries came into existence. Drug Manufacturing was started for the first time which was followed by the establishment of light engineering units and rice and flour mills.

It has already been stated that the establishment of Industries Department in 1923 could not motivate the Government to formulate a dynamic industrial policy which could provide direction for proliferation of industrial activities in the State. The efforts made by the Government from time to time either in regard to the establishment of new units or to provide any direction were nothing more than the patch work technique to take advantage or remove the problem faced by the industries from time to time. The lacuna resulted in deficiency of capital from both internal and external resources. The question of formulating a proper industrial policy was first discussed in 1924 in State Council. It was followed by a memorandum

submitted to Darbar by a number of parties including the Directorate of Industries. Unemployments Commission (1937) and Kashmir Chamber of Commerce (several times) continued to make efforts in this regard till 1960 when first Government's policy was given a shape.

The Industries Department mainly confined itself to make investigation and make plans for future. However, a Cottage Industries Board was established in 1936, but it could not do any tangible work. The Government, however, took a number of steps to reorganize and give impetus to industrial activity in the State. The State Aid to Industries Act was passed in 1937. Though loans given to industries were insignificant but the Government under the Act, sought to (i) guarantee a part of the loans, (ii) subscribe to debentures, (iii) grant land, raw materials on favourable terms, and (iv) impose protective duties etc. All the steps guaranteed under the Act could not ameliorate the working conditions of the Industrial Sector. The guarantee provided in the Act remained on paper. In addition, Jammu and Kashmir Factories Act, 1949, the Workmen's Compensation Act, 1943, and Jammu and Kashmir Children Act, 1945, were also added to the statute book.

The Second World War proved a boon in disguise. The industrial activity in the State got a boost on account of demand from different sources and the drastic cut on imports in force by the British Government. This led to the development of industrial activity in private and public sectors as well as organised and unorganised sectors. A number of factories came up and the number of persons employed increased from 10,000 to 17,000 during these three years. The export of wo l and woollen goods also increased from Rs. 30.5 lakh in 1938-39 to about Rs. 60.5 lakh in 1945-46. The proportion of manufactured goods in the total export went up from 23.5 per cent in 1929-30 to 26.5 per cent in 1950-51.

The partition of the country and the tribal raid aided by Pakistan provided serious blow to the economy of the State particularly the manufacturing industry which was based on external market. The external trade was completely paralised. Even after the ceasefire on 1st January, 1949, the State continued to suffer from the effects of war and instable economic

conditions for several years as most of trade was conducted through Rawalpindi, Sialkot and Lahore. The State economy was completely shattered as a result of the creation of Pakistan. The State lost 20.5 per cent of the total import trade and 31.6 per cent of total export market. Some of the industries suffered on account of migration of population to Pakistan. Among them mention may be made of tanners and chappal makers of Jammu. Some of the cottage crafts like namda and carpet weaving suffered on account of stoppage of import of wool and cotton from Pakistan. This inflicted a serious blow to industrial activity. Several units were closed and a large number of craftsmen was rendered unemployed. As a result of these facts, the number of factories which stood at 99 in 1946 came down to 60 in 1947 and 54 in 1948 and only 30 in 1950. The labour employed also registered a fall from 17726 in 1946 to 7297 in 1950. The annual production of cottage crafts and small industry declined from Rs. 1 63 crore in 1949 to Rs. 23.10 lakh in 1950.

Development

The State has industrially lagged behind as compared to the other more advantageously situated States. This has been due to inadequacy of infrastructural facilities such as power, net work of means of communication, raw-material etc. According to annual survey of industries the total number of census and non-census registered factories engaged in manufacturing and processing was 336 in 1980-81 as against 272 in 1974-75 of which 293 submitted their returns. The factories had a total asset of Rs. 127 crore with Rs. 97 crore in the fixed capital and Rs. 30 crore in the working capital. The factories employed over half a lakh persons as workers and employees to whom a sum of Rs. 13.57 crore was paid as wages and salaries. The capital strength has gone up by about four-fifth, employment about three times and wages and salaries by more than two times during the period. The input and output at Rs. 82 crore and Rs. 107 crore respectively have more than tripled.

The total employment in the industrial sector is roughly

estimated at 1.46 lakh workers with 0.96 lakh in the household sector and 0.50 lakh in the non-household sector. There are not many large and medium scale industries. Most of these units viz. 31 are in the public sector and account for an employment of over 6,000 persons. Out of these units eight are engaged in textiles, two in joinery, one in sports goods, one in plyboard, three in processing of resin and turpentine, twelve in processing of mineral, two in handicrafts, one in santonian and one in leather. The total production of these units during 1981-82 was of the order of Rs. 1439 lakh against less than half of this level in 1973-74. The value of production for the units run by J&K Industries Limited alone was Rs. 1,242 lakh ending 1982-83 and Rs. 1223 lakh during the 1983-84 again more than double in the base year.

In the large and medium sector industries the year 1979-80 witnessed significant achievements. The Bari-Brahamana Industrial Complex started with 7 new Industrial Units commissioned with a total investment of Rs. 10.00 crore and the employment for nearly 2,000 persons. Two paper projects in the private sector are also likely to come up in the State. The work on the apple processing plant near Sopore costing about Rs. 150 lakh, the Spun Silk Mill of SIDCO costing Rs. 500 lakh, the expansion of HMT factory costing Rs. 300 lakh, the Precision Measuring Instrument Factory of HMT costing Rs. 300 lakh and the Electronic complex of SIDCO have come into existence. A number of important projects credited with high employment potential including electronic watch factory, a composite watch making unit, an integrated poultry development project are in various stages of consideration and when taken up for implementation, these would lead to tremendous industrial activities generating investment of the order of Rs. 43.00 crore and employment for over 400 persons.

If one looks at these achievements keeping in view the status of industrialisation in the State four years back, one would have cause for satisfaction. But we have still to go a long way before we can legitimately claim that we have been able to tackle the problem of poverty and unemployment through industrialisation.

The work participation ratio in the State is 29.76% only.

This does not take into account under-employment and disguised unemployment in the rural areas. With the increase in population it would not be possible for agriculture to absorb additions to the work force. The only alternative to improve the position of employment and incomes is the development of industry. The level of industrial development in the State has, however, lagged behind many of our neighbouring States, especially the Punjab and Haryana. The contribution of the industrial sector to the State income is hardly 2% against an All India average of 14.7%. The relative backwardness of our industrial sector is attributable to a variety of reasons most important of which is our geography. Besides, lack of appropriate infrastructure especially power has hindered its growth. In view of high costs of transportation of raw material and semi-finished goods reliance will have to be placed more on the use of locally available raw materials. These are industrial timber, temperate fruits, limestone and other minerals and sericulture. There is also vast potential of development of backward temperate areas which are suitable for location of precision industries and manufacture of high value items.

Accordingly subtained efforts of the State Government to bring industry on proper footings have been yieldings quite encouraging results. The efforts of the State Government are to promote industries that have natural potential for growth. These industries include mineral-based, fruit-based, wool-based, silk-based and agro-based in addition to handicrafts and tourism. The main planks of the State Government's strategy for industrial development are :

(i) to make an all out effort to involve successful and experienced entrepreneurs from all over the country in industries with natural growth potential in the State;
(ii) to develop skill-based industries and those industries for which the valley is ideally suited such as electronics and precision engineering items;
(iii) to promote small scale industries based on local raw material and largely to cater to local demands;
(iv) to revamp and develop the sericulture industry; and

(v) to develop handicrafts in a big way so as to find gainful employment for the growing manpower in the rural areas.

Government Policy[1]

To ensure that industrialisation proceeds on sound lines, it is the necessary to have a well thought-out framework covering :

(a) choice of projects;
(b) their location;
(c) measures to improve the competitiveness; and
(d) the role of public and private sectors.

In making a choice of projects, account has to be taken of the advantages, which are many, as well as of some of the disadvantages from which the State suffers. The resource endowment of J&K is, in many ways, very different from the rest of the country, placing it in an advantageous position to set up certain industries. At the same time there are many problems and impediments too, perhaps the most important being the high cost of transport.

Location

Whenever a new project is to be set up in the State, there is an understandable tendency for different regions to lay claim to its location on the ground of their backwardness or other considerations. No doubt, there are some industries whose location offers a fairly wide choice. But for most industries the location will have to be influenced by a number of considerations, transport costs being an important one but only one of them. Industries which create problems of disposal of wastes which are polluting in character will have to be kept out of areas where tourism is expected to thrive, or where they can cause damage to fisheries or pose health hazards to the people.

Industries calling for particular indigenous raw material may have to be located in the proximity of their source of raw material. Industries which call for particular skills have to be in places where such skills are known to exist.

Other factors too, such as the availability of power, water supply, climatic conditions and ecological considerations, will have an important bearing on the choice of the location.

A development oriented policy can improve the competitiveness of enterprises in many ways. There is much that can be and needs to be done to make industries located in the State and particularly in its backward areas. The incentives offered by the Central Government to help the backward areas of the country are no doubt there. The State Government too can take a number of positive steps in the same direction.

The inadequacy of resources has been one of the causes of the State's industrial backwardness. It would seriously retard progress if all the finance for industrial development has to be found from the meagre resources available in the State Plans, as has been the tendency so far. In view of competing demands, particularly from sectors which cannot attract other sources of investment like the infrastructure and social services, the State's resources would not go far. There is clearly an urgent need to stimulate private investment from within the State and outside, and to utilise institutional finance to a much greater extent.

In order to quicken the pace of development, steps must be taken to stimulate private investment and entrepreneurship within the State

There is also need to attract and promote private investment from outside which will bring in with it technology as well as good managerial and marketing practices.

Strategy for the Future[2]

In the industrial development of the State utmost attention should be given to utilising the natural resources of the state in combination with its manpower to generate new income. Because of its climatic conditions the State is in a position to

grow on its soil many things which cannot be grown in other parts of the country. Industries which would raise the value of these products before they go out of the State should receive special encouragement. The State should not only sell fruits but also processed fruits and other products based on fruits. The abundant growth of willow can sustain a flourishing sports goods industry, but unfortunately for lack of technology and capital the State is still producing sports goods on a limited scale and below international standards.

The fact that the Valley has to depend on high cost road transport is generally considered to be a major impediment to its development. The DRC thought that the cost of transport can be lowered by appropriate policies to rationalise the road transport system to effect economies. At the same time an added burden on the cost of transport is imposed by the levy of tolls on all goods coming into and going out of the State. With the heavy dependence in the State budget on the revenue derived in this manner, it may not be possible for the State Government to consider the abolition of tolls altogether. However, selective exemptions would be justified. In so far as the toll serves as a measure of taxing the domestic consumer it may well continue to serve the purpose until more sophisticated methods of taxation can be devised. But the import of things necessary for production can be granted exemption in the interests of stimulating development. This would not mean a loss of revenue because if on account of the levy, imports of machinery and raw material into the State do not take place there is no accrual of revenue either. Similarly, in the matter of exports, while raw materials can stand the levy because of the absence of competing sources of supply, manufactured goods and products which face competition may be under severe handicap.

Apart from measures to reduce the cost of transport, the strategy of development should be such as to convert the impediment of high transportation costs into an impetus for new development. This can be done by a careful choice of industries. The very fact of high transportation costs would make it cheaper to produce many things in the State than to get them from outside. Similarly, in the Valley with its temperate climate and the tradition of intricate workmanship many industries can be developed which are of high value and have low volume and weight. Watches, electronics, precision instruments, cameras are examples of this kind. Then again some industries which on the plains need a substantial investment in airconditioning can be set up in the temperate climate of the State without such investment and can, therefore, be economic. In the part of Jammu which is connected by rail almost any industry which can be set up, say, in Punjab or Haryana can be established. In the part of the Committeee's Report dealing with industrial development an attempt will be made to identify some of the projects which can be taken up straightway and also to indicate the manner in which new projects can be developed and financed.

Attention to modern industry should not be at the cost of handicrafts. They can be set up even in remote areas which will generate new employment based on the skills for which the State is famous. Unfortunately, something in the nature of stagnation seems to have afflicted the handicraft industry. At any rate the vast potential is being but inadequately exploited. This is because the handicraft producers are still trying to cater primarily to tourist needs rather than stepping up sales outside the state, in the rest of the country as well as to the world outside. Further, the production of handicrafts continues to be concentrated primarily in Srinagar and the kind of organisational effort to get production started in other areas has been lacking.

Small Scale Sectors

Rapid industrial development contributes to the process of accelerated economic growth. It is the production of industrial goods that sustains the momentum of growth in a developing economy. Therefore, in every scheme of economic development through national planning, efforts are mainly directed towards increased industrial production in order that the chief objective of growth with welfare could be achieved without side ill effects.

While industrialisation on the whole plays an important

role in the development of underdeveloped countries, small scale industries have their unique place in the conspectus of economic development. In a country like India, where unemployment and under-employment are proliferating and where most of the entrepreneurs are capable of making only small investment and where there is dearth of sophisticated machinery and modern technology, small industry which is labour intensive and capital saving, plays a vital role in the overall economic development of the country. Adaptability of small scale industry to semi-urban and rural environments where the infrastructure is lacking makes an additional case for this industry to flourish. The primary object of developing small industries in rural areas is to extend work opportunities, raise income and standard of living and to bring about a more balanced and integrated rural economic development.

The rapid growth of modern small industry during the last 30 years is indeed a success story in Industrial India. The increase in the number of units, the increase in the volume of production, the wide variety of new products requiring highly developed skills taken up, the employment opportunities created, the entrepreneurial skills developed, the increases attained in productivity, the extent of industrial dispersal achieved, the volume of capital mobilised for industrial purposes, the contribution to localise industrial production—all these testify to the progress achieved and the vast potentialities that further exist in the small scale industrial sector. The Government of india is actively trying to promote such growth by assigning important role to this sector in the attainment of several major objectives of Five Year Plans.

It is in the context that we have to see, what role small scale industries can play in the process of industrialisation of Indian economy. The following lines from Industrial Policy Resolution 1956 clearly point out main arguments generally advanced in favour of small scale industries. Referring to the role of cottage and village and small scale industries, the Resolution says :

"They provide immediate large scale employment they offer method of ensuring a more equitable distribution of the national income and they facilitate an effective mobilisation of resources of the capital and skill which might otherwise remain unutilised. Some of the problems that unplanned urbanisation tends to create will be avoided by the establishment of small centres of industrial production all over the country."

Let us consider each of these four arguments one by one.

Employment Argument

Small scale industries are labour intensive and capital saving. A given amount of capital invested in small scale industrial undertakings is likely to provide more employment, at least in the short run, than the same amount of capital invested in large scale undertakings.

India, while on one hand is capital poor country, on the other, suffering from the problem of unemployment due to higher rate of population growth. During the first three plans period the increase in labour force was of the order of 37.8 million whereas only 31.5 million job opportunities could be created both in agricultural and non-agricultural sectors. The situation deteriorated further in the three annual plans 1966-69. During this period, the job opportunities created were 0.4 to 1.4 million while new entrants to labour force went up to 13.8 million. It was estimated that between 1966-71 there would be some 23 million new entrants to the labour force and by 1976 a further 30 million. Taking the increase in labour force to be about 25 million in the 4th Plan period, the overall job seekers will not be less than 70 to 80 million.

In such a situation, small scale industries which can be started with small capital and which provide employment to many are widely accepted. Furthermore, the cost of economic overheads like factory building etc. is much less in small enterprises than in large ones. Small scale industry would use labour and capital in proportions corresponding more closely to the proportions in which these two factors of production are available in India than does large scale industry.

But this argument has been opposed by Prof. Dhar and

Lydall in their Book, "The Role of Small Enterprises". According to them, "if one wants to increase employment, there is no need to search for industries that require a large amount of employment per unit of output." Employment as such can be created by simply adding extra workers at any point one likes in the productive process. The important problem, in other words, is not how to absorb surplus resources, but how to make the best use of scarce resources. "If a solution can be found to the latter problem, output can be maximised." They are of the opinion that employment argument is really an output argument. On the basis of figures collected from "Census of Indian Manufacturers 1956", and studies prepared by the Perspective Planning Division of the Planning Commission of capital, labour and output relations in various industries, they concluded that "in general the most capital intensive type of manufacturing establishment is the small factory using modern machinery and employing upto 50 workers". Besides, bulk of the income generated from small scale industries will be paid to the wage earners whose propensity to save is much low, thereby effecting the rate of saving and hence investment.

But on the basis of empirical evidence, the argument of Dhar and Lydall cannot be supported. The Table 11.1 presents statistics in respect of capital employment and output of large and small scale industries.

TABLE 11.1

Size of industry in terms of capital

(Figures in Rs.)

	Small	Large
1. Fixed Capital per employee	2018	17753
2. Value added by manufacture per unit of employment	2359	5217
3. Value added by manufacture per unit of fixed capital	1.17	0.29

Source : Annual Survey of Industries.

Table 11.1 reveals that in comparison to large scale industries, the employment capacity of small scale industries is about 8 times more. What is more significant is that output/capital ratio in small industries is about four times higher as compared to that in large scale industries. This means that an output of rupees 1.17 requires capital worth Re. 1.00 from small sector, whereas the output created in the large scale sector from the same investment is only 0.29. Thus while employment/output ratio is low in case of small industries (that is because large scale industries employ more capital), both the employment capacity and the output/capital ratio of small industries are higher than those in large industries.

Another piece of evidence against the argument of Dhar and Lydall can be cited from the factory sector. In 1974-75, net capital output ratio of big enterprises works out to be 3 times that of small enterprises while latter's capacity to provide employment was about 7 times more in comparison to large scale sector.

Late Prof. P.C. Mahalanobis was of the opinion that in view of the meagreness of capital resources there is no possibility in the short run for creating much employment through the factory industries. Now consider the household and cottage industries. They require very little capital; with any given investment, employment possibilities would be ten or fifteen even twenty times greater in comparison with corresponding large scale industries.[3]

Decentralisation Argument

This argument concerns with dispersal of industries and balanced regional development. Encouragement of small scale industry may help to preserve a healthy balance between the rates of economic growth in urban and rural areas. Beyond a certain point, additions to urban population involve heavy costs in the form of investments in social capital expenditure on housing, schools, hospitals, places of worship and development of roads, water supply and drainage. Again a rapid flow of population to the town not only creates unhealthy conditions but is bad for vitality of village life; the argument being that

those who go to the towns include a high proportion of the more able and enterprising villagers who are dissatisfied with lack of opportunities for progress and advancement in the villages. Large scale industry is almost inevitably attracted to the large urban centres and the same is likely to be true of many small scale undertakings too, but there may be considerable scope, if appropriate policies are adopted for decentralisation of small scale industries. It is also believed that small scale industries when started in rural areas will also eradicate seasonal unemployment or underemployment in agriculture and thus best use would be made of the labour otherwise wasted. In the Industrial Policy Resolution 1956, it has been stated that, in order that industrialisation may benefit the economy of the country as a whole, it is important that disparities in the matter of development between different regions should be progressively reduced. To achieve this object the programme of rural industrialisation has been undertaken intensively since the commencement of the Second Five Year Plan.

This argument draws its force from the fact that small scale industries can "more easily be decentralised than large industries in the small towns and villages". Dhar and Lydall have questioned the validity contained in this statement. They question : "Is there any evidence for the belief that small industries can more easily be decentralised than large industries?" Answering their question they point out, "small modern firms generally draw their raw materials from long distance and sell their products in fairly wide markets. In the case of consumer goods, the types of goods made by these modern firms are usually fall in the category of luxury goods in the sense that they are not items of everyday consumption on which any large proportion of the average household budget is spent. Almost inevitably, enterprises making such goods must sell in a wide market, containing population which run into millions rather than into thousands. Such firms cannot be expected to survive in remote villages by working for the "local market"?[4]

Social and Political Argument

Growth of large scale enterprises have led to the emergence

of inequalities of income and concentration of economic power in a few hands. It is believed that small scale industry, with proper safeguards, "will lead neither to concentration nor to inequitable distribution but will result in more equitable distribution of the produce of industry". On the grounds of democracy, it is suggested that the "existence of a large number of independent self-employed persons is a guarantee for the maintenance of democratic institutions".

Equality argument has been opposed by Prof. Dhar and Lydall on the grounds that the total volume of savings and taxes which is generated by a large number of small income earner, is almost inevitably smaller than the volume generated by an equal total income in the hands of a smaller number of people and that the small firms are generally not so technically progressive as large firms. "For these reasons, we may have equality at present but this equality will be at the cost of rapid growth of the economy in future. But in an under developed country like India, the workers have a choice not between a high paid job and a low paid job but between a low paid job and no job at all. So even if small enterprises provide low paid jobs, they would be of vital importance in an economy like India where millions of persons are in search of employment. A policy of supporting cottage and small industries is really a policy of social insurance for a group which would otherwise be threatened by unemployment."[5]

The Latent Resources Argument

Penetration of small scale industries into rural and semi-urban areas would help in tapping latent resources and growing entrepreneurial skills. There are reserves of savings and to the extent small enterprises encourage dishoarding, there is definite gain to the community. In the same way, latent entrepreneurial and managerial abilities, for which there is acute shortage in India, could be developed if chance to start a small scale industry is given to them. "The growth of a very large number of small firms in the post-independence period only highlights the fact that given the basic conditions such as supply of power and credit facilities the latent resource of entrepreneurship can be

tapped by the growth of small enterprises only." A dispersal system of rural industries may create investment incentives by its very existence. Even if capital intensity of such small industries is not as low as would be desirable, the fact that new capital formation is being helped may be a significant gain.

Besides these four major arguments in favour of small scale enterprise, we may further add that large scale industry calls for a great deal of managerial and supervisory skill. These skills are in very short supply in under developed countries and it is important to economise as much as possible in their use. Small scale industry provides a way of doing this, and at the same time provides industrial experience and serves as a training ground for large number of small scale managers. Another writer in this regard remarks: "They are the nurseries where they train entrepreneurs to embark on more ambitious projects, workers of higher industrial skill, greater industrial discipline and better industrial attitude."

Further it is not only managerial and supervisory skills that are in short supply in under developed countries, but many types of skilled labour as well. Small industry is in a better position than large industry to take advantage of existing traditional skills.

These industries by carrying job to the worker will overcome the difficulty of territorial immobility.

They are also useful in checking the rising prices by increasing the supply of consumer goods since these industries have short period of gestation. They are of the "quick invest type". With very little round about production process. the time lag between making of an investment and yielding of consumer goods is relatively very short. The need for such industries is especially urgent in an economy like ours because "with a given time interval, the same capital turns over a greater number of times and produces commodities which are together a multiple of what it can purchase. As consequence, the ratio of commodity to the money in circulation increases leading to a reduction in price level".

Finally small scale industries do not create heavy demand

on imported machinery and raw materials thus saving the scarce foreign exchange resources.

The importance of small scale industries in Indian economy can well be explained in the words of First Five Year Plan which states :

> "The importance of small scale production in the predominantly agricultural economy can hardly be stressed. What is essential for economic development on democratic lines is a diffusion of sources of power and instruments of production, which would release new springs of energy among the people and make them participate actively. Small scale industries are essential to provide subsidiary or alternative occupations and to utilise local raw materials or cater to local markets."

While assessing the real role of small scale industries in the economic development of our country, one should take a realistic view. One school of thought which have sympathy with small industry argues that they can get almost everything from the small industry. On the other hand, the other school (Dhar and Lydall) feels that the cost(s) of small industry are and would be very high : it cannot take advantage of economics and skill and cannot generate quality goods and, therefore, ultimately, unless the product of the industry is not subsidised, the small unit will not be viable Both these extremes present false pictures. The fact is that small industry has advantage especially in certain industries and these advantages are real and afford all the justification for strengthening the industry's position. P.S. Lokanathan is much optimistic about the role of small scale industries and in his opinion the future of small scale industries lies in strengthening itself in various ways : first by modernising its management techniques : second there should be a special financial institution or institutions to meet its working capital needs. Further the industry should expand in those lines of production where there are outstanding advantages.

Development

Bulk of industrial activity is in the small scale sector and nearly 13,000 units with employment over 62,000 stood registered under the District Industries Centres programme ending 1982-83. The number is likely to go into the neighbourhood of 15,000 with employment of over 72,000 ending 1983-84. The number has gone up nearly seven times since 1973-74 when 2,203 units only stood registered and more than half of this increase is accounted for after 1980-81 only. The average unit provides employment to about 5 persons. The Khadi and Village Industries sector is another important part of our industry and engages about 0.19 lakh workers in the registered units alone. They play a valuable role in providing part time as also full time job in the rural areas especially in the off season.

The behaviour of Industrial progress in small scale sector is indicated in Table 11.2.

TABLE 11.2

Industrial progress in small scale sector

Year	No. of Units	Employment	No. of Sheds	No. of units functioning	Annual Production (Rs. in lakh)
1	2	3	4	5	6
1973-74	2203	N.A.	276	129	289.64
1977-78	3498	17252	299	150	272.59
1980-81	8427	43184	378	224	923.06
1981-82	10792	54042	406	264	1073.60
1982-83	12902	61900	409	269	2236.11
1983-84	14920	68912	411	293	2408.56

Source: Directorate of Industries & Commerce, J&K Government.

It will not be out of place to point out here that industrial activity is mostly concentrated in the two main cities and the surrounding areas. However, determined efforts are made to decentralise industrial growth and this is the guiding principle in setting up of the district industries centres. The conscious policy adopted in this behalf has made considerable impact on the pattern of growth of these units. The concentration of small scale units in the districts of Srinagar (including Badgam) and Jammu was to the extent of 49% and 31% respectively

TABLE 11.3

Decentralisation of S.S.I. units

District	Number and percentage of units				1983-84 No. of Units
	1973-74		1982-83		
	No. of Units	Percentage	No. of Units	Percentage	
Anantnag/ Pulwama	112	5.08	1930	14.96	2166
Srinagar/ Badgam	1069	48.52	3148	24.40	3628
Baramulla/ Kupwara	74	3.36	1691	3.11	2168
Leh/Kargil	1	0.05	309	2.39	361
Jammu	678	30.78	2272	17.61	2469
Udhampur	75	3.40	1086	8.42	1270
Kathua	115	5.22	1158	8.97	1391
Doda	44	2.00	431	3.34	498
Rajouri	29	1.32	451	3.50	477
Poonch	6	0.27	426	3.30	492
Jammu & Kashmir	2203	100.00	12902	100.00	14920

TABLE 11.4

Industrial classification of registered factories
(Manufacturing units only)

Sl. No.	Name of the industry	1974				1982			
		Number		No. of workers		Number		No. of worker	
		No.	%age	No.	%age	No.	%age	No.	%age
1.	Food products	49	17.19	600	5.37	99	17.93	1892	9.66
2.	Beverage	1	0.35	139	1.24	7	1.27	386	1.97
3.	Cotton and wool products	78	27.37	5726	51.22	91	16.49	6724	34.35
4.	Wood and wood products	49	17.19	783	7.00	76	13.77	1494	7.63
5.	Paper and paper products printing	10	3.51	524	4.69	15	2.72	682	3.48
6.	Leather products	2	0.70	270	2.42	2	0.36	112	0.57
7.	Rubber products	2	0.70	33	0.30	2	0.36	120	0.61
8.	Chemical except petroleum products	8	2.81	447	4.00	22	3.98	788	4.03
9.	Non-metallic minerals products	11	3.86	753	6.73	80	14.49	3311	16.91
10.	Basic metal & alloy except machine & transport equipment	27	9.48	595	5.32	81	14.86	1325	6.77
11.	Machines, machine tools and parts	20	7.02	504	4.51	27	4.89	620	3.17
12.	Electrical machinery apparatus & appliances	13	4.56	279	2.50	25	4.53	370	1.89
13.	Transport equipment and parts	4	1.40	169	1.51	7	1.27	166	0.85
14.	Other manufacturing industries	11	3.86	357	3.19	17	3.08	1585	8.10
	Total	285	100.00	11179	100.00	551	100.00	19575	100.00

(1973-74). The process of decentralisation has considerably reduced the proportion of the share of these two districts. Their shares have come down to 24% and 18% respectively ending 1982-83.

Backward districts such as Doda, Rajouri, Poonch and Leh/Kargil have also started to come on the industrial map of the State though not in a big way. The extent of dispersal achieved so far has been reflected in Table 11.3.

The industrial activity is spread over all categories but the bulk of units are engaged in agro-based activity. Non-existence of minerals and other raw materials limit the scope of other types of units. Food, beverages, wood works, textiles are the prominent groups and account for over 50% of the registered factories. Another important category is non-metallic mineral products which accounts for 14% of the registered factories. 15% are engaged in basic metal and alloy products and 5% in machines and machine tools and parts. During the past 8 years considerable shift has been observed in the composition of the industrial structure. The percentage of units engaged in textiles was over 27 in 1973-74 and 16 in 1981-82. The percentage of units engaged in wood has come down from 17 to 14. The percentage of units engaged in non-metallic minerals and basic metals has gone up from 4 to 14 and 9 to 15. The structural shift has been reflected in Table 11.4.

References

1. For details refer to Development Review Committee Report, Part-IV, published by Govt. of J&K.
2. For details refer to the Development Review Committee Report—Part-I, published by Government of Jammu and Kashmir.
3. Quoted by Myrdal in Asian D rama, Vol. II, p. 219.
4. Dhar and Lydall, The Role of Small Enterprises in Indian Economic Development.
5. B. Datta, Economics of Industrialisation, p. 114.

12

Mineral Resources

Introduction

The economic development of a country depends to a greater extent, on the availability of mineral resources. For instance, coal, iron ore etc. which are the basic minerals needed for the growth of iron and steel industry are vitally necessary for the country's economic development. Similarly, there are other minerals like Mica, Copper, and Zinc, which are of great economic importance. Then there are mineral fuels like petroleum, coal, uranium etc. which form a tremendous force of power. There are various other minerals also which can contribute towards the economic development of a country. Every State in the country, big or small is endowed with such natural gift which seeks to accelerate the pace of their economic development.

The State of Jammu and Kashmir is one of them. The State of Jammu and Kashmir is predominantly an agricultural State as more than 80% of the total population depends on agriculture. But in view of the climatic condition, and cropping pattern, this does not provide them employment throughout the year. Due to continuing inadequacy of infra-structure, and lack of investment, early development of large scale industries is not possible. All these factors have kept the State of Jammu and Kashmir backward in industrial sphere as compared to some other States in the country. The situation

may be averted to some extent by proper exploitation of mineral resources.

To accelerate the pace of development of our State, the Directorate of Geology and Mining was created for the first time in 1959. With proper investigations and research, different types of mineral resources, such as fuels, metallic and non-metallic have been discovered which may contribute definitely towards the economic development of Jammu and Kashmir State in a very significant manner.

Kinds of Mineral Resources

Important mineral resources of Jammu and Kashmir State can be categorised under the following three heads :

1. Fuels
2. Non-metallic
3. Metallic minerals etc.

I. Under fuel comes :

(a) Coal
(b) Lignite
(c) Natural Gas and Petroleum

II. Under non-metallic mineral comes :

(a) Gypsum
(b) Limestone
(c) Sulphur
(d) Kaolin, and
(e) Magnesite

III. Under metallic mineral comes :

(a) Bauxite
(b) Iron Ore
(c) Copper Ore
(d) Led Silver Ore
(e) Zinc Ore
(f) Nickle Ore
(g) Gold and other types of Ores.

Above mentioned mineral resources can be put to use in the industries against which they are shown as in Table 12.1.

TABLE 12.1

Mineral which can be utilised in industries

Sl. No.	Name of the Mineral	Name of the industry for which it can be utilised
1.	Gypsum	1. Sulphur, Sulphuric Acid 2. Fertiliser 3. Cement 4. Gypsum Boards for construction of works.
2.	Limestone	1. Cement 2. Precipitated Chalk 3. Soda Ash 4. Calcium Carbide
3.	Bauxite	1. Industrial Alum 2. Refractories
4.	High Grade Quartzite	1. Crystal Glass 2. Sheet Glass 3. Bottle Glass 4. Goggle Glass 5. Sodium Silicate 6. Refractories
5.	Lignite	1. Fuel 2. Fertilizer
6.	Coal	1. Fuel etc.

Occurrence of Mineral Resources

Description regarding the occurrence of above defined mineral resources of our State can be assessed from the following discussion.

Coal

One of the most important mineral resources found in the State of Jammu and Kashmir, is the black diamond popularly known as coal. A good quantity of semi-anthracite coal occurs in Jammu Province, forming a number of seams 2-20 ft. thick in the substhus series. The belt of coal runs from Jangalgali to Jigni, over a distance of 36 miles. Most of the important fields viz. Kalakote, Metka, Mahagala areas are on the western flank. Besides, the coal belt of good quantity/quality is located on the fringes of great limestone formation, east of Kotli where hundred million tonnes of coal is stated to exist. There are two types of coal measures, upper and lower measures found in the State of Jammu and Kashmir. The upper measures coal of the State is powderly, and Khratta is hard and lump like Bengal coal. With the construction of road to Jangalgali, Kalakote and Kotli coal fields have been put in operation and the production ranged from 9,000 to 10,000 million tonnes per annum, which provided work to about hundred families, particularly in far-flung areas.

The coal belt of Jammu can broadly be divided into following groups depending upon their geological distribution.

A-Group : Kalakote Coal Belt (North-Western Sector)

1. Kalakote area (Sair block)
2. Tatapani block
3. Jigni block
4. Mahagala
5. Metka

B-Group : Chakkar-Chinkha-Jangalgali (Central Sector)

1. Chakkar area (Khori, Sujjanpore, Kalimiti)
2. Sangarmarg-Chinkha (Panhasa, Paddar and Thakhrakote)
3. Jangalgali (Lain, Gouri, Mitti, Block Slope, Santrani Kund, Thalwal and Anji Khad to Salal)

Lignite

Lignite represents the second formation of coals. It is bluish-black and is composed of woody matter embedded in marcerated and decomposed vegetable matter. It is bounded, jointed and disintegrated after drying in the air because of high moisture contents. Extensive deposits of lignite are known to occur in Karawa formation in Kashmir Valley. In Kashmir Valley it is found in Nichahama, Tangmarg, and in Lanilab etc. The Nichahama and Shali Ganga areas are known to contain 188 M Tons. So Kashmir lignite compares favourably with the lignite deposits of Burma, and Sexony and has a calorific value of 5614 to 7216 Tons. Thus Kashmir Valley is very famous for such type of deposits which can be utilised for local fuels and to make producer gas, useful for heating and steam raising.

Natural Gas and Petroleum

Third and very important type of mineral resource found in our State of Jammu and Kashmir is the Natural Gas and Petroleum. Natural Gas of various types, such as dry Gas has been located near Silk Factory of Kashmir Valley. Most of these resources also exist near Naushehra, Dharmathal and Ramnagar districts etc. Petroleum is found in a very limited quantity in our State. Very little quantity of petroleum is discovered near Surinsar area of Jammu District. ONGC is again exploring the area.

Non-metallic minerals found in our State are as follows :

1. *Gypsum*

One of the most important non-metallic minerals discovered in our State of Jammu and Kashmir is that of Gypsum. This mineral of considerable economic importance, is known to occur in a sizeable quantity and in a fairly good grade in various parts of Jammu Province and in Kashmir Valley. In Jammu, it is found in various parts of Doda District, lying

along the banks of Chenab and in Kashmir Province it is found mainly in Baramulla District, along the Jehlum. The Gypsum deposits in Jammu Province are restricted mainly to Doda District through sporadic occurrences are known to occur in many other parts of Jammu District. Gypsum deposits could broadly be divided into three groups, depending upon their geological distribution within the district.

1. *Assar*—area roughly 30 Kms from Batote on Kishtwar road.
2. *Kanga*—40 Kms from Batote.
3. *Parlanks*—Thalwa area—60 Kms from Batote.

Both the numbers 2 and 3 above are located on the Ramban and other roads.

2. *Limestone*

Another type of non-metallic mineral viz. limestone occurs extensively in the State of Jammu and Kashmir provinces, though in varying degrees of purity. Limestone is one of the most important industrial mineral required in the manufacture of cement, iron and steel, ferro alloys, chemicals, fertilizers, lime etc. Limestone formation of considerable size occurs in three different provinces in the State. In Jammu Province, the most extensively developed formation known as great limestone, comprise parts of Udhampur and Poonch Districts. In the eastern parts of the Province bands of limestone are found in various parts of Kathua and Doda District.

In Kashmir Valley these deposits fall in Anantnag, Srinagar and Baramulla Districts. In Ladakh territory, limestone has also been found and are known to occur in rocks of diverse age, both from the point of view of suitability for use in cement making, as well as in other industries. The limestone deposits of the Valley appears to be better suited than the other deposits of the State, so far as present information goes. Although limestone occurs in Jammu and Kashmir, and in Ladakh but only deposits of limestone of Jammu and Kashmir State, has received due attention by Minerals Department of the State from time to time. It has been found that about 115 million tonnes of limestone with CA^0 content above 50% Mg^0 0.8 to

3% on the average have been located in the State. Limestone deposits of Jammu Province are extensively developed, but by and large, these have not been found to be of the grade, no suitable for use in cement making.

Again limestone of Manasbal valley of Kashmir, is also of minor importance. About 9.2 million tonnes of limestone of varying degrees have been estimated from Jangalgali. A high grade limestone of Bhawan, Achhabal and Wuyan (Khrew) area have calcium contents, ranging between 51 to 56%. Such limestone deposits of the State are being properly utilised in Wuyan Cement Factory, which is contributing towards the production of cement to a greater extent.

3. *Sulphur and Borax*

Sulphur is one of the most indispensable minerals of the modern age. It is yellow in colour, and has a typical smell by which it can be easily identified. Elemental sulphur is found in irregular masses, also massive re-inforced and stalaotite etc. It finds use in the preparation of a large number of chemical and metallurgical products in some way or the other. India does not possess such deposits of sulphur, excepting those of Ladakh District. The elemental sulphur deposits in Pugga Valley of Ladakh, is one of the most important deposits in the country. Sulphur is also reported from other places in Ladakh such as Bisil, Bushkin and Gurkun. Sulphur requirements of the State are now met entirely from imports. Steps have, no doubt, been taken for the exploration of such resources in Bihar and other States, like Rajasthan. However, Pugga (Sulphur) deposits are of special significance, and have, therefore, attracted attention of exploitation, and exploiting agencies.

The Mineral Survey Department of the State Government carried out preliminary investigation for Sulphur in Pugga Valley in Ladakh in the year 1942. As a result of various studies, about 6000 tonnes of Sulphur bearing layers and extending over 100 metres has been estimated. Besides Sulphur Borax are also annually deposited in Pugga plains which amounts to 300-1000 tonnes of Borax. The Government also taking quick steps in discovering again abundant quantity of such

minerals during the recent years. The success or the recovery of the Sulphur and Borax would result in the saving of foreign exchange to the tune of Rs. 10.00 crore, which can be utilized for other developmental purposes of Jammu Kashmir and Ladakh Districts.

Quartzite and Glass Sand

$Si^{0}2$ (Silicon Dioxide) is an important constituent of many of the rock forming minerals. Quartzite is one of the most important minerals on the crust of the earth. Quartzite of economic importance occurs in pegmatite veins, and quartzite veins. Quartzite and glass sand suitable for the utilisation in to glass industry are known to occur in the State of Jammu and Kashmir. Quartzite of good quality are also reported from Paddar area of Doda District of our State. Quartzite silica sand is mainly used in the manufacture of glass ceramics and also in foundry practices. Extensive deposits of quartzite are known to occur in the State : those belonging to Muth quartzite of Devonian age, have assumed great significance; the investigation carried out by the Directorate of Geology and Mining and Geological Survey of India reveals that glass sand has also been known to occur in Jammu Province and preliminary studies undertaken indicate the feasibility of utilising the material with prior treatment for improving the quality.

In Anantnag District, glass making material in the form of quartzite have been encountered within Gugaldhar, Hapatnar area situated at a distance of about 88 Kilometres.

Sizeable deposits of quartzite have been reported from various places in the Taxi bed Jammu. A possible reserve of the order of 3,80,000 tonnes of whitish, greyish, yellowish and reddish quartzite and 50,000 tonnes of quartzite boulders, cobbled pebbles, etc. have been reported from the two places Taliawali Khad, and Tawi Iron Bridge on river Tawi, Jammu, Besides, this glass sand material is known to occur in the parts of Poonch area of Jammu.

Third category of Metalliferrous type of mineral resources found in the State of Jammu and Kashmir are :

Bauxite

One of the most important metalliferrous minerals found in the State of Jammu and Kashmir is Bauxite. The Bauxite deposits of Jammu Province are reported in several small detached patches between the Chakkar on the north-west and Jangalgali on the south-east. The main deposits of bauxite are known to occur at and near the following localities :

1. Salal.
2. Chakkar.
3. Sangarmarg.
4. Jangalgali.
5. Panhasa.

From the brief resume of the above defined Bauxite deposits of Jammu, it is interesting to see how much amount of Bauxite this State is possessing. Total reserves of Pisolitic/Semi-Pisolitic Bauxite, Bauxite-clay and Kaolinite are shown in Table 12.2.

TABLE 12.2

Bauxite deposits and the localities

(Figures in Tons)

Localities	Pisolitic/Semi-Pisolitic Bauxite	Bauxite Clay	Kaolinite
Chakkar	1,95,000	3,44,960	2,49,130
Sangarmarg	2,64,250	—	—
Panhasa and Doda	1,80,727	4,08,279	10,42,800
Sukhwalgali			
Jangalgali	2,00,000	—	—
Salal	20,00,000	24,00,000	14,00,000
Total	28,39,977	31,53,239	26,91,930

Thus such deposits found in different Districts are of great importance. It is because these deposits are mostly used in the manufacture of metallic aluminium and for use in chemical and

abrassive industries, whose creation without the availability of such mineral poses a difficult problem.

Iron Ore

Another important minera l found in our State of Jammu and Kashmir is the Iron-ore. Several places in Jammu and Kashmir have been located for iron in olden days, with the result that sufficient deposits of irom ore seems to occur in our State for various purposes. Thick clay iron stone beds, and ferrous silicate deposits are found along the coal belt. Besides this, important and convenient deposits of iron ore which can easily be tackled because of the pressure of coal and limestone within a few feet i.e. 9-15 thick beds of hematite has been located at Khandli-Rajouri District. Iron deposits are also found at Uri, Khrew and so many other important places. Thus iron ore deposits of our State are highly valuable.

Copper Ores

Copper ores are divided into four groups namely :

1. Native
2. Sulphate
3. Oxidized, and
4. Complex.

It is very important mineral resource which is mostly used in modern industrialization, electrical manufactures and so on. Jammu and Kashmir State is fairly rich in such deposits. Copper mines were worked at Lashtial and Shumbal. A copper belt has been located right from Sukhwalgali to Salal, being the most mineralised area. Rich copper deposits have been located at Kulan Sindh Valley. Numerous copper indications have been found in Kishtwar, Kargil and Zanskar. Sufficient deposits are found at Dhar and Tagmachik area in Ladakh.

Lead and Silver Ores

Nigote, a place 4 miles north of lower Drabi was an important mining centre in early days mainly for the extraction of lead and silver ores. Galena deposits have been located at Buniyar, Chacha Nullah, Kishtwar and Kotli etc. Some of these ores contain 13-30 ounces of silver per ton. The Directorate of Geology and Mining is carrying out preliminary Geological surveys for the last ten years at Buniyar for the Galena and at Lashtial for copper ores. Lead, another important are is found in Ramsu in Jammu Province. These ores are used in our State for the purpose of making pencils, cables covers, storage batteries, and for so many other economic purposes.

Zinc Ores

Rich and wealthy zinc blends, lenticular deposits have been found in the State of Jammu and Kashmir, especially in Reasi. The surface prospecting has indicated a reserve of 10,000 tonnes of float ore. Handpicked samples show 67.% zinc and 0.174% cadmium. This ore is mainly used for brass making, rolling zinc and other purposes in our State.

Other Minerals of J&K State

Apart from major mineral resources such as coal, lignite, gypsum, quartzite and glass sand, there are so many other minor mineral resources, both metallic and non-metallic which are found in our State. These consist :

Bentonite

Bentonite and Fuller's earth are two natural occurring minerals of montmorllonite group. These have decolourising and absorbing properties. Two types of Bentonite—the swelling type or sordium Bentonite and non-swelling type or Calcium Bentonite are of great use. There is also a third type of Bentonite with zero water layer particles and is probably

electro-statically neutral. Calcium Bentonite is usually referred to as Fuller's earth. The essential difference between Bentonite and Fuller's earth lies in their modes of occurrences, and other physical properties.

The occurrence of Bentonite are reported from many localities of Jammu Province of the State. These include Para, Chittapail, Madkoli, Purani Kali, Uttar Behni and Bara Khettar. Middlemiss reported the occurrence of Bentonite running for about 13 Kms as a continuous bed, 30 to 60 cms in thickness in the upper Siwaliks. According to the available information, the results of the efforts of Central Road Research Institute, indicate the occurrence of Bentonite at Bara Khettar and other localities, where the thickness has been found to vary between 1.5 m and 2.8 m. A possible reserve of the order of 25,000 tonnes has been estimated. The Directorate of Geology and Mining, carried out investigations, including experimental mining and exploring the possibility of developing the market for Jammu bentonite. The Bentonite deposits of Jammu and Kathua districts (Jammu Province), have also been investigated by the Geological Survey of India. The figures of reserves have also been arrived at by the Geological Survey of India for various varieties of materials, based on the assessment made in the following blocks. The length taken for the purpose of estimation in each of the blocks is indicated in parenthesis :

Pangala Sandhi (1600 metres), Sandhi-Kulwalta (6400 metres), Uttarbehni (3050 metres), Khiriri (2650 metres), Kulhows (800 metres), Basantar (400 metres), (A 270 metres and B 130 metres), Tera (800 metres), Ratanpur (1800 metres), Sokriyana (800 metres), Kashmu (2000 metres), and Bara Khetar block.

Fuller's earth, also used as pesticides, in cosmetics as detergents, as a raw meterial for activated earth, soap, leather, rubber, water purification, foundry practices for mine dusting and lubricating oil etc. has been reported from Buddal area of Rampur, Rajouri Tehsil at three places at Kandra hill. The mineral, occurring as a 1.8 to 2.1 metre thick bed is confined to a slate formation. The clay is white to bluish white in colour, soft and soapy to feel. When freshly dug it is hard clay like

lumps, but on drying to exposure, it disintegrates into fine powder.

The Bentonite is one of the minerals of the State which finds its place on the mineral map of the country. It has also got an export potentiality, subject to adequacy of reserves, and grades of material and successful improvement of quality. For industry-wise specifications, the Bentonite is also used for various purposes, such as foundry, paint, vanaspati, oil refining and drilling mud etc. Thus its presence in our State is of great value.

Graphite

The graphite also known as black lead is a variety of naturally occurring carbon. It is black to steel grey in colour, usually leaves a black streak on the hand when touched because of its extreme softness and greasiness. Depending upon its mode of occurrence and origin, it is graded into three forms—flake, crystalline (lumpy) and cryptocrystalline (amorphous). Flake Graphite is found in metamorphosed rocks as vein deposits, crystalline as fissure filled veins and cryptocrystalline form in metamorphosed coal beds. It has a high refractoriness. Graphite, mostly graphitic rocks have been reported from the parts of Baramulla District, Kashmir Valley, and from Sumjam, Doda District in Jammu Province. In Kashmir Valley, the material has been reported from Braripora, Khadanyar and Islamabad etc.

Graphitic deposits of Braripora in Uri Tehsil of Baramulla District of Kashmir Valley, were investigated by Middlemiss, who reported that 122 metre thick, richly graphitic schist of amorphous variety carries rich bands of graphite at three different localities over a length of about 3 Kms. The central out-crop, containing the richly graphitic schist, occupies ore shaped belt of hill and extends from hamlet of Mugam Piran on the west to Forest Rangers hut in the east. A reserve of 183,315 tonnes of material was estimated preliminarily from the central beds.

More recently, investigations by the Geological Survey of India, have shown that the graphite seem between Khadanyar

and Islamabad is amorphous in variety, dark sooty in appearance, dull with patchy shining lustre.

In Jammu Province apart from veins of graphite, graphitic rocks are known to comprise parts of the Doda District.

Ochre

Ochre occurs in nature as a source of mineral pigments in various shades, and colours generally ranging from yellow to red to brown. Depending upon the colour, ochres are called red ochre, yellow ochre, green ochre, green earths, stenna, umber and by various other names.

Ochres are used as paint or to give colour. Occurrences of ochre are reported in our State, especially from Nurkhwan, Battasar and Jhuggi, Uri Tehsil and Narsar, Anantnag District in Kashmir Province.

As a result of preliminary studies of the deposits of Nurkhawan, Battasar and Jhuggi, Middlemiss reported that the ochre beds occur as isolated surface deposit, shading the hill sides at the aforesaid places with vertical thickness of the ochre beds varying from few cms to 6 metres. At Nurkhwan the ochre deposits envelop an area of 8,360 sq. metres.

Government Policy Towards Mineral Development

A policy aiming at proper exploitation, and proper development has been adopted by Government of Jammu and Kashmir State and Government has taken initiative for the fuller utilisation of mineral resources of our State which is clearly visible from the development of mineral resources, since the post-independence period. In each Five Year Plan period, millions of rupees have been spent for their extraction and their fuller development. Apart from investigation for major minerals during the successive Five Year Plan Period, the policy of the Directorate of Geology and Mining would also be to carry out detailed investigation aimed at in the development of industrial rocks, and minerals of our State and to conduct long term surveys aimed at setting up of industrial units in small scale sector in near future. The policy proposes to assist, not only large scale sector, but also small scale entrepreneurs, in the utilisation of not only minor minerals

but also of major minerals and industrial rocks through small scale ventures.

With these objects in view the Department has set up a special cell and appointed two Project Officers who have been charged with the responsibility of carrying out all connected work in this regard, assisted by the required supporting staff. The main objective of the Project Officers, one each for Jammu region and for Kashmir region, and Ladakh region, would be to complete all studies and surveys at pre-investment stage.

As a result of assessment made so far, and keeping in view the infrastructural facilities and marketability of the products it is proposed that the units could be covered in near future, under the liberal mineral policy adopted by the Government, as well as Directorate of Geology and Mining Department of our State.

Limestone-based Industries

1. Lime manufactured in modern Lime Kilns.
2. Cutting and polishing of Limestone and marbles.
3. Manufacture of marble chips (by crushing).
4. Manufacture of cement tiles.
5. Calcium chloride.
6. Hydrated lime for the manufacture of lime.

Gypsum-based Industries

1. Manufacture of Plaster of Paris.
2. Manufacture of surgical plaster.
3. Manufacture of Gypsum boards.
4. Manufacture of dry distemper for painting.

Glass making Quartzite-based Industries

1. Manufacture of Sodium Silicates.
2. Glass bottles manufacture.

Other Minerals like Graphite, Garnet etc.

1. Manufacture of pencil lead and Graphite crusibles, subject to success benefication on Graphite.

2. Abrasive paper from Carnet.
3. Manufacture of glazed potteries/tiles.
4. Manufacture of earthen potteries etc.

Although, one unit for the manufacture of plaster of Paris has already been established in the Industrial Estate at Digiana, Jammu Province, proposal for establishing of manufacturing of Gypsum boards, and refractories based on Bauxite and Aluminous materials are also receiving attention at the hands of Government. For proper development of mineral resources of our State, Regional Research Laboratory, Jammu, had indicated the feasibility of manufacturing of Gypsum Boards, and the matter is receiving attention from the Jammu and Kashmir Minerals Ltd. In fact, the policy towards mineral development at present and in the near future will have to undertake increasingly programmes of exploration upto pre-investment stage to facilitate investment decisions for setting up of mineral based industries. The policy will even now have to take up exploration of limestone, Gypsum, Bauxite, Sulphur and Borax in Ladakh district to meet the requirements of the Jammu and Kashmir Minerals Limited for finalisation of techno-economic feasibility studies, and formulation of the firm project proposals already envisaged. Moreover, in the programme of exploration, investigation will have to be taken up for graphite, ochre, marble, china clay, coal (Jammu Province), Bentonite and Fuller's earth, quartizite of Batla Hills (Poonch) non-ferrous metals (lead, zinc, copper etc.) in Lolab Valley (Kashmir Province) etc.

A considerable period of time would be required to bring all these investigations to the stage of completion to the stage III. Mineral exploration and development having proverbially a long-gestation period, a period of 10-15 years is involved from the beginning of the mineral exploration to the completion of the projects and setting of industries the work load involved can be easily visualised.

Again with the changing pattern of science and technology the policy of the Mining Department will have to be diverted to other areas in near future, especially in search for deposits, such as minerals and metals, which even, if not considered

economically attractive today, would be found to be so in the near future. Moreover, with the progress made almost daily in the fields of improvement in quality and quantity of minerals i.e. through various techniques of ore dressing and beneficiation, the limits of payability are being progressively pushed backward. It is, therefore, only logical to expect that attention of Directorate of Geology and Mining will switch over to some deposits of mineral resources, which even though today, are not considered worth attention, but will merit attraction in the near future.

The policy of the Directorate of Geology and Mining should also cover at present and in the near future various inaccessible parts of the State viz. Ladakh, Paddar, Kishtwar and Kashmir province etc. on modern lines.

Thus there is a wide vista open to the State Directorate in the realm of mineral exploration and their proper development. The scope of work of the Directorate of Geology and Mining is enormous which is evident from Table 12.3.

TABLE 12.3

Scope of work of the Directorate of Geology and Mining

Sl. No.	Year	Employment provided	Major Extracted (Value in Rs. lakh)	Minor Extracted
1.	1978-79	1294	66.31	237.27
2.	1979-80	1713	95.01	229.92
3.	1980-81	1617	132.68	347.73
4.	1981-82	1527	106.07	159.98
5.	1982-83	1445	102.93	161.72
6.	1983-84	1563	81.72	210.06

Source : J&K Minerals/Geology & Mining Deptt.

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Labour

Like other parts of India, the Jammu and Kashmir State is today on the way towards a colossal transformation in its economic and social set up.

In 1947 when the State acceded to India, the picture presented by it was one of all around misery, squalor and poverty of the people who had struggled for long for emancipation from feudal rule. The accession, which marked the culmination of the freedom movement in the State, unfolded new opportunities to the masses to give a concrete shape to their ideals of democracy and economic progress enunciated in their radical socio-economic blueprint of "NAYA KASHMIR". As a first measure to end economic exploitation of the common man, a series of agrarian reforms were introduced by the Government to abolish big landed estates and transfer land to the tillers. These reforms were of great significance and marked an advance over other parts of the country in as much as the Jagirs beyond 22.75 acres were transferred to the tillers without compensation for it. As a result of these radical land reforms thousands of tillers became masters of their lands and the entire agrarian set-up underwent a profound change.

With the progressive integration of the State with the Indian Union in recent years more measures were taken to bring the advantage of the democratic institutions to the common man in the State. The object of these measures has been to give a

concrete shape to the aspirations of the people to participate in a fuller measure in the common task of building up socialist and democratic India. One of these measures relates to the extension of Central Labour Laws to the State.

The object of these laws is to widen the scope of the legal rights provided to labour under the State Laws and to make available to them the rights and facilities being enjoyed by labour in other parts of the country.

In the following pages an attempt has been made to give a brief description of the laws thus extended.

The following Central Laws have been in force in the State for the past few years :

1. Workmen's Compensation Act, 1923.
2. Payment of Wages Act, 1936.
3. Industrial Disputes Act, 1947.
4. Factories Act, 1948.
5. Industrial Employment (Standing Orders) Act, 1946.
6. Trade Union Act, 1926.
7. Motor Transport Workers Act, 1961.
8. Minimum Wages Act, 1948.
9. Payment of Bonus Act, 1965.
10. Maternity Benefit Act, 1961.
11. Weekly Holiday Act, 1942.
12. Employment Liability Act, 1938.
13. Employment of Children Act, 1938.
14. Working Journalists (Conditions of Service) and Miscellaneous Provisions Act, 1965.
15. Coal Mines Labour Welfare Fund Act, 1947.
16. Children (Pledging of Labour) Act, 1933.
17. Coal Mines Provident Fund Bonus Scheme Act, 1948.
18. Employees State Insurance Act, 1948.
19. Employment Exchanges (Compulsory Notification of Vacancies) Act, 1959.
20. Contract (Regulations and Abolition) Act, 1990.

In addition to the above the following State Acts are also in force in the State :

1. J&K Employees Provident Fund Act, 1961.
2. The J&K Shops and Establishment Act, 1966.

The Acts from serial Nos. 7 to 19 have been extended to the State for the first time from September, 1971. The broad features of these Acts are given below :

Workmen's Compensation Act, 1923

The Act provides for payment of certain classes of employers to their workmen, of compensation (ranging from Rs. 1400 to Rs. 14000 according to percentage of earning capacity lost) for injury by accidents arising out of and in the course of their employment. It also covers payment of compensation for occupational diseases that arise during the course of employment.

The State Government has been empowered under clause (2) of sub-section (n) of Section 22 of the Act to bring any other employment of hazardous nature within the scope of the Act.

Provision has been made in the Act to prevent delay in making payment of compensation and the Commissioners have been empowered to impose penalties in this regard.

For the administration of the Act the State Government have appointed all Assistant Labour Commissioners of the Labour Department with respective areas of jurisdiction to be Commissioners under the Act.

Payment of Wages Act, 1936

The object of the Act is to regulate the payment of wages to classes of persons employed in industry who draw on an average less than four hundred rupees a month. The regulation of the Act is of two kinds, namely (1) about the date of payment of wages and (2) about deductions from wages whether as fine or otherwise. The Act regulates the fixation of wage period which should not be more than one month. Undertakings employing less than 1000 persons must pay wages before expiry

of 10th Day after the wage period. All the payments of wages must be made on a working day and in current legal tender.

The Act applies *abinitio* to persons employed in any factory and upon any railway in receipt of wages and salaries which average below Rs. 400 per month. The State Government has however, been empowered to extend provisions of this Act to any other Class of persons after giving three months notice of its intention to do so.

The State Government has appointed all Assistant Labour Commissioners within their respective jurisdictions as Inspectors who shall be responsible for enforcement of this Act.

For disposal of claims, arising out of deductions from wages or delay in payment of wages of persons covered under the Act, the State Government has appointed Commissioner for Workmen's Compensation to be the authority under the Act.

The Industrial Disputes Act, 1947

The Industrial Disputes Act, 1947, provides for the following machinery for investigation and settlement of industrial disputes between employers and employees :

(a) *Works Committees* : These Committees consisting of representatives of workmen and employers are constituted in every establishment employing 100 workers or more, in order to remove cause of friction between employers and workers in day to day working of the establishment and to promote measures for security and good relation between them.

(b) *Conciliation Officers* : The Conciliation Officers are appointed by the State Government for mediating and promoting the settlement of industrial disputes. The settlement by conciliation officers have legal validity. In case of failure to bring parties to settlement the Conciliation Officer has to submit a report to the Government who are empowered either to refer the dispute for adjudication or reject it specifying the reasons for such rejection and conveying the same to the party raising the dispute. All Assistant Labour Commissioners and

Deputy Labour Commissioners have been appointed as Conciliation Officers within their respective local units of jurisdiction.

(c) *Adjudication machinery* : The Act provides for a three-tier system of original tribunals—Labour Courts, Industrial Tribunals and National Tribunals—Labour Courts and Industrial Tribunals function both at the Central and State levels for dealing with industrial disputes that might be referred to them either by the Central Government or State Government as the case may be.

National Tribunal is constituted by the Central Government alone to adjudicate disputes of national importance or disputes in undertakings having branches in more than one State. There is a standing Industrial Tribunal/Labour Court in the State to which all disputes are referred for adjudication.

Factories Act, 1948

This Act regulates the working conditions obtaining in factories. The Act applies to a factory where 10 or more workers are working and manufacturing process is carried on with the aid of power and 20 or more workers are working without the aid of the power.

All District Medical Officers of the State have been appointed as Certifying Surgeons for the purposes of this Act.

The employer required under the Act to provide drinking water, latrine, urinals, spittoons for maintaining cleanliness and working facilities for storing and drying clothing, facilities, for sitting, first aid appliances, canteens, shelters, rest rooms, lunch rooms, creches for the welfare of workers. Labour Welfare Officer have to be provided in factories employing 500 or more workers to ensure that all these facilities are provided to the workers.

The maximum working hours for an adult worker have been fixed at 48 hours in any week and one holiday in a week is to be given to a worker compulsorily. Children under 14 are prohibited to work in factories. Children are not to be employed or allowed to work for more than 4½ hours and during night. Provision is made in the Act for grant of leave with

wages to a worker after he has worked for 240 days or more at one day for every 20 days for adult and one day for every 15 days for children.

For the administration of the Act, the Labour Commissioner has been appointed as Chief Inspector of Factories. He is assisted by two Inspectors of Factories one at Srinagar and other at Jammu. These two Inspectors enjoy powers under all sections of the Act. In addition the State Government have appointed all Assistant Labour Commissioners to be Additional Inspectors for purposes of Chapters III and V of the said Act.

Under Section 85 the State Government can declare other establishments not ordinarily falling under this Act to be factories under this Act and apply all or any provisions of the Act to such establishments.

Industrial Employment (Standing Orders) Act, 1946

Under this Act, the employers of establishment wherein 100 or more workers are working or were employed on any day of the preceding 12 months, are required to define precisely the working conditions of service of workman employed in an industrial establishment and to make such conditions known to the workmen. The Government has been empowered to extend the scope of the Act to establishments employing less than 100 persons—after giving two months notice.

The Government has already framed model standing order which have become part of the rules under this Act. All Industrial establishments covered under this Act have to conform their respective standing orders to these model standing orders.

The Government has been empowered to appoint a Certifying Officer under the Act and an appellate authority.

Trade Union Act, 1926

The main object of this Act is to confer a legal and corporate status on registered trade unions. Any seven persons who are engaged in trade, business or industry can form a Trade

Union and apply for its registration to the Registrar of Trade who is appointed by the State Government under this Act. It also provides for framing of by-laws by the registered trade unions for conducting their business. Half of the office bearers of a trade union must belong to that Industry for which the Union has been constituted. The Labour Commissioner has been appointed as Registrar of Trade Unions and Deputy Labour Commissioners. Assistant Labour Commissioners have been appointed as Additional and Deputy Registrars of Trade Unions within their respective jurisdictions.

The Registrar is empowered to cancel or withdraw registration of Unions in case they are found to violate any provision of the Act.

Motor Transport Workers Act, 1961

The Motor Transport Act, 1961, provides for the welfare of motor transport workers and regulation of their conditions of work. This Act applies to every motor transport undertaking employing five or more transport workers but the State Government can apply all or any of the provisions of this Act to any motor transport undertaking employing less than five motor transport workers. Every motor transport undertaking is required to get itself registered under the Act. The private carriers are also covered by the Act.

No adult motor transport worker is allowed to work for more than 8 hours in any day or forty-eight hours in a week. However, for running motor transport service on long distances a worker has to work for not more than ten hours in a day and 54 hours in a week. Similarly, in the case of break-down or dislocation of motor transport service or interruption of traffic, the worker may be required to work for more than eight hours in a day or 48 hours in a week. For adolescents maximum working hours are 6 in a day including ½ hours rest interval and they are prohibited from working before 6 A.M. and after 10 P.M. The Act also provides for grant of a day of weekly rest.

The Payment of Wages Act is applicable to motor transport workers also. They are entitled to overtime wages at double the ordinary wages if they have to work for more than 8 hours a day. An adult worker is entitled to leave with wages at one day for every 20 days of work and an adolescent one day for every 15 days of work.

The State Government has appointed Labour Commissioner and Chief Inspector and All Assistant Labour Commissioners as Inspectors for administration of the Act.

The employer is required to provide rest rooms where workers may halt for the night, raincoats and prescribed uniforms under rules to drivers, conductors and checking staff, medical aid at operating centres and halting stations and a first aid box in every transport vehicle during all working hours.

Minimum Wages Act, 1948

The Act provides for fixation of minimum rates of wages to the workers in certain employments, where workers organisations are poorly developed and the workers organisations are poorly developed and the workers bargaining power is negligible. The object of this Act is to prevent exploitation of the workers. For this purpose it aims at fixation of minimum rates of wages and makes it obligatory on every employer to pay the same rate. Generally, the wages under this Act are fixed in industries or employments provided the number of workers engaged in that industry or employment are more than one thousand in the whole of the State.

The procedure visualised under Section 5 of the Act for fixing and revising minimum wages is either by the Committee procedure or by notification procedure. When the Notification method is adopted for fixation or revision, the proposal should be notified in the official gazette for the information of the persons likely to be affected, specifying a date not less than two months from the date of notification, after which the proposal will be taken into consideration. In the case of revi-

sion by notification method the appropriate Government should consult the Advisory Board also. In both the cases the rates recommended by the Committee and accepted by the Government after consideration of all representations should be published in the official gazette. The function of the Committee or the Sub-Committee is to hold enquiries and advise the Government regarding fixation and revision of minimum wages while the Advisory Board coordinates the work of the Committee and Sub-Committees is to hold enquiries and advise the Government regarding fixation and revision of minimum wages while the Advisory Board coordinates the work of the Committee and Sub-Committees and advises the Government generally in the matter of fixing and revising minimum rates of wages.

The Act provides for appointment of authority for hearing claims arising out of payment of wages less than minimum rates. For enforcement of the Act the State Government has appointed all Wage Inspectors as Inspectors under the Act. All Commissioners for Workmen's compensation have been appointed as authority for the purposes of Section 20 of the Act.

Payment of Bonus Act, 1965

The payment of Bonus Act provides for payment of bonus to all employees (other than apprentices) drawing a salary/wages not exceeding Rs. 1600 per month and employed in a factory and in other establishments in which 20 or more persons are employed in any day during an accounting year. It is not applicable to certain categories of employees working in nsurance companies, universities and other educational institutions, departmental undertakings, the Indian Red Cross Society etc.

Industries are exempted from the operation of the Act upto the sixth accounting years following the accounting years in which the establishments sell goods or render services or upto accounting year from which it derives profit, whichever is earlier.

The amount of bonus available for set on or set off of bonus is a percentage of gross profits earned by an industry. Whether or not there are profits in an accounting year, an employer is required to pay under Section 10, a minimum bonus of 4% salary wages earned by an employee if the employee has worked for not less than 30 working days in an accounting year or Rs. 40 (Rs. 25 in the case of an employee who has not completed 15 years of age) whichever is higher. The maximum bonus is limited to 20% of salary/wages of an employee. Employees drawing salary between Rs. 750 and Rs. 1600 per month are paid bonus computed on a salary of Rs. 750 per month only.

The State Government has appointed the following Officers of the Labour Department as Inspectors for administration of the Act :

1. All Assistant Labour Commissioners within their respective units.
2. All Wage Inspectors.

Maternity Benefit Act, 1961

This Act is to regulate the employment of Women in every establishment, factory or plantation including such establishment belonging to Government during six weeks immediately following the day of her delivery or her miscarriage.

Every woman shall be entitled to and her employer shall be liable for the payment of maternity benefit at the rate of the average daily wages for the period of actual absence immediately preceding and including the day of her delivery and for six weeks immediately following that day.

The State Government has appointed all Assistant Labour Commissioners as Inspectors for the administration of the Act.

Weekly Holiday Act, 1942

Necessary provisions for grant of weekly holidays to persons employed in shops, restaurants and theatres, exist in the State's

Shop and Establishment Act, 1966. However, the Weekly Holiday Act, 1942, is the Central Act on the subject and it can come into force in a State only if the State Government by notification in the official gazette so directs.

Employer's Liability Act, 1938

The Act provides, where personal injury is caused to a workman :

(a) by reason of the omission of the employer to maintain in good and safe condition in any way, works machines or plant connected with and used in his trade or business or by reason of any like omission on the part of any person in the service of the employer;
(b) by reason of the negligence of any person in the service of employer;
(c) by reason of the act or omission or any person in the service of the employer;

a suit for damages in respect of the injury instituted by the workman or by his legal heirs.

Employment of Children Act, 1938

The Act prohibits the employment of children who have not completed their fifteenth year of age, in industrial establishments such as railway, transport and port. The Inspectors of Factories, Wage Inspectors and all Shop Inspectors have been appointed as Inspectors within their respective jurisdictions, for the purposes of this Act.

Working Journalists (Conditions of Service) and Miscellaneous Provisions Act, 1965

This Act regulates conditions of service of working journalists and other persons employed in newspaper establishments. The special feature of this Act is that the Act provides for payment of gratuity to an employee on his retirement,

retirement or death at the rate of 15 days average pay for every completed year of service, over and above the retrenchment compensation which the worker is entitled to under the Industrial Disputes Act. Further the Act regulates the working hours, holidays and lays down procedure for fixing and revising rates of wages of the employees working in the newspaper establishments. The working hours of a working journalist have been fixed at 144 hours in 4 consecutive weeks exclusive of the time for meals. It also allows a weekly rest day. Earned leave on full wages for not less than 1/11 of the period spent on duty, leave on medical certificate on 1/2 of the wages for not less than 1/18th of the period of service for working journalist is also provided for in the Act.

The Government has appointed all Assistant Labour Commissioners and Wage Inspectors, within their local areas of jurisdiction, as Inspectors under the Act.

The Labour Commissioner has been appointed as authority under Section 17 of the Act.

Coal Mines Labour Welfare Fund Act, 1947

The Act provides for financing measures for promoting the welfare of labour engaged in the coal mines, including housing, medical facilities etc. For such purposes it authorises to impose a cess on all coal and coke despatched from the collieries at four annas but not more than eight annas per ton and constitute a Fund. This fund is administered by Central Coal Mines Welfare Commissioner with his headquarters at Dhanbad.

The Children (Pledging of Labour) Act, 1933

The Act prohibits the pledging of the labour of child who is under the age of 15 years by his parents or guardians. It also lays down penalty to be imposed on the employer who shall make such an agreement with the parent or guardian of the child.

Coal Mines Provident Fund and Bonus Scheme Act, 1948

The enforcement of this Act rests with the Chief Coal Mines Provident Fund Commissioner. The Act provides for framing

of provident fund and bonus schemes for workers employed in the coal mines.

The Employees State Insurance Act, 1948

The scheme of Employees State Insurance as envisaged under the Employees State Insurance Act, 1948, is one of compulsory State Insurance providing for certain benefits in the event of sickness, maternity and employment injury to a workman employed in or in connection with work in factories other than seasonal factories.

The Employees State Insurance Fund is mainly derived from contributions from Employers and Workmen. Workmen whose earnings do not exceed Rs. 1.50 a day are totally exempted from payment of any contribution, the entire contribution on account of such workmen being payable by the Employer. The rate of contribution payable by Employer in implemented centres (when benefit provisions are extended) is 4% of the total wage bill and in case of non-implemented centres 3/4% of total wage bill. The employees contribution on an average comes to 2.26% of the wages.

This Act is administered by the Central Employees State Insurance Corporation but the State Government is required to take following action :

1. Appointment of Administrative Medical Officer and ancillary staff to administer the scheme.
2. Setting up of Employees State Insurance Dispensaries and arrange beds in hospitals for insured workers.
3. Appointment of Medical Officers, Specialists (part time) and para-medical staff in such dispensaries.

The expenditure on medical care is to be shared between the State Government and the Employees State Insurance Corporation in the ratio of 1:7 respectively.

The Employment Exchanges (Compulsory Notification of Vacancies) Act, 1959

The enforcement of this Act rests with the Directorate of Employment Exchanges.

Under this Act an employer has to notify the vacancy to the Employment Exchange before filling up the same.

In addition to these Acts Contract Labour (Regulations and Abolition) Act, 1970 has also been enforced in the State from February, 1971.

The Contract (Regulation and Abolition) Act, 1970

This Act applies to every establishment in which twenty or more workmen are employed or were employed on any day of the preceding twelve months as contract labour, and to every contractor who employed on any of the preceding twelve months, 20 or more workmen.

It applies to any person employed in or in connection with the work of any establishment to do any skilled, semi-skilled or unskilled, supervisory, technical or clerical work for hire or reward, whether the terms of employment be expressed or implied but does not include a person who is employed mainly in managerial or administrative capacity or a person working in any supervisory capacity whose wages exceed five hundred rupees per mensem.

The State Government may constitute a State Advisory Board consisting of a Chairman to be appointed by the Government, Labour Commissioner ex-officio, and such member or members not exceeding 11 but not less than 9 to represent Government, the Industry, the contractors, the workmen and other interests which, in the opinion of the Government, ought to be represented on the State Board.

The State Board may, as the case may be, constitute such committees and for such purpose or purposes as it may think fit.

Every principal employer of an establishment to which this Act applies shall make an application to the Registration Officer in the prescribed manner for registration of the establishment.

The Government has to appoint Licensing Officer and Registration Officers for the purpose of this Act.

The Employees Provident Fund Act

This Act provides for framing of a Provident Fund Scheme for every person employed in industry/factory as mentioned in the schedule where ten or more persons are working. The Fund is mainly derived from contribution from employers and employees. The rate of contribution by employer is fixed at $6\frac{1}{4}$ per cent of the wages of a workman and the contribution of the employee may vary but it shall not be less than $6\frac{1}{4}$ per cent and not more than $8\frac{1}{3}$ per cent of his wages.

The members to the fund are granted advances to meet expenditure on their illness, marriages, construction/repairs of houses etc. Yearly interest is credited to the accounts of contributors.

The Labour Commisisoner is working as Commissioner Employees Provident Fund who is assisted by Provident Fund Inspectors in the implementation of the scheme.

Shops and Establishments Act, 1968

This Act regulates conditions of work and employment in shops, commercial establishments, residential hotels, restaurants, eating houses, threatres and other places of public amusement or entertainment and other establishments.

Under this the Government has been empowered to fix opening and closing hours for shops and establishments and theatres and other places of public amusement and entertainment, hotels, easting houses and restaurants. All shops and establishments have to observe one day in a week as closed day which is fixed by the Government.

The Act provides for grant of one month's privilege leave to a person employed in establishment for every 12 months of continuous service and casual leave for 14 day in a year.

The Labour Commissioner has been appointed as Chief Inspector of Shops and Establishments and is assisted by Deputy Chief Inspectors of Shops and Establishments (Deputy Labour Commissioner) and Shop Inspectors in the enforcement of the Act.

14

Forest Resources

The State of Jammu and Kashmir is famous all over the world for its forest wealth. The forest industry plays an important role in the State's economy and it is also responsible for the main inflow to State exchequer. Also it provides employment to thousands of people. Every year about 165 lakh cubic feet of timber and about 24.5 lakh cubic feet of firewood are extracted from them. Besides about 2500 quintals of medicinal herbs are obtained every year from the forests. At present the forest department earns as annual revenue of Rs. 9.25 crore as compared to Rs. 25 lakh in 1947. The Department earns an amount of Rs. 4.41 crore per annum from its Corporation.

But if the medicinal herbs and other articles from the forests are sold at market rates, the income from forest resources will exceed Rs. one hundred crore. Under the afforestation scheme during the year 1976-77, about 44 lakh saplings were planted and during the next five years about 355 lakh trees will be planted. From the medicinal herbs available in the forests of J&K State about 2000 quintals of drugs are manufactured every year.

Jammu and Kashmir is fortunate enough to be gifted by nature with a vast resource of forests covering an area of 20,891.89 sq. kilometres including 718.15 sq. kilometres of Sancturies and Game reserves. Distribution of forest area

(20891.89 sq. Kilometres) by composition (species-wise(is given in Table 14.1.

TABLE 14.1

Classification of forest area in the State (1983-84)

	Sq. Kms.
Deodar	1116.30
Chirs	1753.00
Kail	1795.66
Fir	31060.76
Others	11404.32
Coniferous and soft wood	19176.04
Non-Coniferous (soft & hard wood)	997.70
Rakhns & Game reserves	718.15
Total	20891.89

Source: D.F.O. Forest Statistical Division.

The forests in the State are mostly confined to the slopes of mountains from 500 metres to 3500 metres. The importance of forests and the vital role they play in the country can hardly be over emphasised. Stress is, therefore, being laid on proper protection, conservation and utilisation of forest resources. A compelling reason today for greater interest displayed for development and preservation of forests is the growing concern about atmospheric pollution and the urgent need to maintain ecological balance.

The forests of the State come under regular scientific management and at present the latest techniques silviculture, forest management and forest statistics are being applied. The preparation of forest inventories for assessing the growing stock has undergone a radical change. The old and conventional method of assessing wood resources by enumeration of trees has been replaced by "point sapling technique" which is more accurate and statistically relevant. This method is being followed in all advanced countries of the

world. Similarly, in preparation of forest maps use of serial photographs is being made more frequently.

Timber Extraction

Timber is the first and most important forest resource of the State. Since about 50 per cent of our rural population is dependent on forests for firewood for their hearths; people living within 3 miles of forests in rural areas are permitted to remove fallen material for use as firewood. In view of the increasing demand for fire-wood more hectares of land are being brought under intensive plantation scheme. In order to ensure supply of timber to small and big industries, in Kashmir valley poplars, walnut and mulberry trees and in Jammu region Sheesham, Kheir, Sajal and bamboo trees are being sown. Special emphasis is also being laid towards prevention of ruthless cutting of mulberry trees, which are being used in the manufacture of sports goods and for the Sericulture industry in the State.

Forest Products

Forests of our State are the finest in the country and mostly include important timber species of Deodar, Kail, Fir. The chief forest products also add to the forest income. Others mostly include medicinal plants, rosin from trees, seasoned house needs like doors and windows, sports goods etc. We thus see that timber is the major product of our forests. Why could not this timber be one of the major by-products and not the minor by-product. Forestry in United States has got to a stage where they no more consider the timber as the only major by-product. Forest scientists are predicting that with the passage of time they will be using all the trees that include the roots, bark, branches and even the foliage.

There has been considerable growth in the out-turn of forest products and accrue of revenue to the State exchequer. The progress of forest produce and revenue realisation from the source is given in Table 14.2.

TABLE 14.2

Growth of forest produce

Year	Total extraction of			Total value of timber & firewood (Rs. in crore)	Total value of minor produce (Rs. in crore)	Revenue realised (Rs. in crore)
	Timber (lakh m^3)	Fire wood (lakh m^3)	Total (lakh m^3)			
1973-74	3.40	0.71	4.11	18.55	3.18	6.60
1977-78	4.56	1.02	5.58	29.04	14.35	18.75
1980-81	6.09	2.38	8.47	78.94	15.24	34.24
1981-82	5.98	2.20	8.18	87.66	16.40	36.27
1982-83	5.90	1.47	7.37	95.02	12.67	35.59
1983-84	6.17	1.20	7.38	N.A.	10.71	33.58

Table 14.2 reveals that the total revenue yielded by the forests during 1974-75 was Rs. 9.53 crore which went up to Rs. 35.95 crore during 1982-83 but fell to Rs. 33.59 crore during 1983-84. The principal forest product is timber useful to us from craddle to grave. Deodar, kail, fir etc. are our important species of wood. Walnut and sheesham are also very important. The extraction of timber has risen from 3.40 lakh cubic metres in 1973-74 to 5.90 lakh cubic metres in 1982-83 and was slightly higher at 5.98 lakh cubic metres in 1981-82. Fir with 2.63 lakh cubic metres, kail with 1.60 lakh cubic metres and deodar with 1.61 lakh cubic metres during 1982-83 are the main constituents. Chir is a minor item with a share of 0.06 lakh cubic metres. The out-turn of fire wood went up three times from 0.71 lakh cubic metres in 1973-74 to 2.38 lakh cubic metres in 1980-81 and showed decline thereafter to 1.47 lakh cubic metres in 1982-83. Among the minor forest products resin is of prime importance and the out-turn is 2.39 lakh quintals accounting for a value of Rs. 10.70 crore. The total value of minor forest products increased from Rs. 3.18 crore in 1973-74 to Rs. 16.40 crore in 1981-82 but declined to Rs. 12.67 crore in 1982-83. The total value of the forest products has gone up from Rs. 21.73 crore in 1973-74 to Rs. 107.69 crore in 1982-83 multiplying five times.

More than half of the timber is exported from the State and yields handsome return. The volume exported has indicated considerable growth and moved up from 0.95 lakh cubic metres in 1973-74 to 3.46 lakh cubic metres in 1982-83. Forest makes a contribution of 8 per cent to the SDP. Its share in SDP at current prices has increased from Rs. 12.31 crore in 1970-71 and Rs. 17.73 crore in 1973-74 to Rs. 79.81 crore in 1982-83. The percentage contribution has correspondingly been 5 in 1973-74 and 8 in 1982-83.

Forest support a number of small scale units. Some 1200 saw mills, two joinery mills, the match factory, resin processing units and several sports goods units like willow bats and badminton rackets draw sustenance from forest.

Out of a total of 6.2 million tonnes of fuel energy requirement, firewood and charcoal (mostly coming from forest) are estimated to meet 4.2 lakh tonnes or about 68 per cent.

In order to meet acute scarcity of firewood and fodder a Social Forestry Project has been undertaken with loan assistance from World Bank. Likely to cost Rs. 24 crore, the scheme envisages plantation in 40,000 hectares of land available in depleted forests, common areas in villages and land available with the farmers. Over and above this area 20 million seedlings are also envisaged to be planted. The project provides for improvement and extension in the existing training schools, setting up of two rural training centres and grant of two fellowships to the manpower required for the scheme. The project is designed to involve local people and institutions like panchayats in the implementation of the programme.

Wild Life Preservation

Wild life is yet another important forest resource and a great asset to the State. The total area under Rakhns and Game reserves is 718.15 Kilometres i.e. 3.4 per cent of the total forest area. In order to preserve the State's wild life birds the Government has initiated a number of measures such as the enactment of Jammu and Kashmir Wild Life (Protection) Act, creation of a separate Directorate of Game Preservation and constitution of State Wild Life Advisory Board. The Jammu and Kashmir Wild Life Act has come into force from January 1979. The proposed outlay under the Wild Life Scheme for 1978-80 is Rs. 55 lakh.

Labour Welfare

The Forests also provide labour to a large number of skilled and unskilled labourers annually. The total employment generated through our forests is about three million man-days annually. Consistent with its policy of improving the lot of labourers, the Forest Department has for the first time initiated action for constructing Rest Homes for labourers and providing shelters at various places. Also medical aid is being provided to the labour working in the factories. The Department has constructed primary school buildings and dispensaries

in such areas which are considered to be the main centres of labour.

Recreational Forests

The State of Jammu and Kashmir has taken intensive measures for the promotion of the tourist industry and beautification of the places of tourist attraction. Green and beautiful forests of the State have been a source of pleasure to our tourists. In view of this importance the department has taken rapid measures for the beautification of Manasbal and Mansar Lakes and Ramnagar Rakh.

Protection of Forests

If measures are not taken to prevent the green gold from the exploitation of vested interests like the unscrupulous forest traders and middle men the industry will be affected badly and thousands of people associated with the industry will be rendered jobless. The Government has launched a campaign against the exploitation of forests by the illicit forest traders. It has also established two training schools one at Chiternar, Kashmir and another at Miran Sahib, in Jammu Province. In these centres forest guards and foresters are trained in forest protection techniques.

15

Cooperation

Pt. Jawahar Lal Nehru, the architect of modern India was convinced that eradication of poverty, ignorance and disease from the country was a pre-requisite for lasting political freedom and that the establishment of a socialistic pattern of society through cooperation was the right method for achieving this revolutionary objective through peaceful and democratic means. For all these he considered introduction of Co-operative method in various economic and social activities on a nation-wide scale as inevitable.

The study of Indian Co-operative movement is a fascinating one. The movement came on the scene when the situation was full of contradiction, when the freedom was a distinct goal, when democracy was misnomer in the country and exploitation of all kinds was the order of the day. But now it is not so. Today it symbolises the Nation's grim determination to break loose of the shackles that has held the country back for centuries past. The Co-operative movement augers for the future.

Co-operation has attracted the attention of social reforms, economists, sociologists, politicians, theologists and cooperators alike over since its inception as a form of business organisation in the middle of the 19th century. Beginning with as an association of individuals for "self held through mutual aid" the Co-operative method is being increasingly applied to

Agriculture and Industrial production as well as social welfare and education activities.

Co-operation as a universal concept, it aims at ensuring equal opportunities to each individual for a fuller *cultured* life.

Co-operation has admittedly been accorded a position of cardinal importance in the rural economy of India. The Cooperative method has been accepted as an indispensable instrument of democratic planning and as an important medium for regeneration of the country's socio-economic life. The recognisation claimed as early as 1897 in India when Sir F. Nicholson in his classic report highlights the need of Co-operative movement.

The Co-operative Societies Act of 1904 as the first measure was passed. The need was felt for bringing a more scientific division of the Co-operative Societies suited to rural and urban areas, and the Co-operative Societies Act of 1912 come into being.

Since it touched the life of the masses, its method and technique of work has to be modified to suit the changing pattern of socio-economic life in the villages. Nevertheless the Royal Commission on Agriculture in 1927 stated "if Co-operation fails, there will fail the last hope of rural India".

Under the *Montford* reforms of 1919 Co-operation became a provincial subject. The direct responsibility of the Central Government in regard to the determination of policy and conduct of administration of the subject, therefore, ceased. Provincial legislations on Co-operation were, therefore, passed and the provincial governments through the Registrar Co-operative Societies, exercised greater direct control on the spread of Co-operative Societies both in form and dimensions.

Later on multipurpose Societies also emerged which influenced the village life as a whole. The period following the Second World War was marked by approach for a planned development of Co-operatives on a nation-wide scale. This approach was suggested by the Co-operative Committee in 1946. For the first time it suggested targets for coverage of

villages and rural population by the Co-operative Movement in a specified period and marketing of agriculture produce by the Co-operatives.

By 1946, the country realised that "Co-operation was the sheet anchor of rural economic democracy". Soon after independence the Co-operative movement was re-emphasised as an instrument for improving rural economy.

Since the beginning of the plan era, Co-operation in this country has made tremendous progress in diverse directions but its cherished objective of effectively serving all sections of the community yet remained to be fully achieved.

It is significant to mention that the credit of introduction and development of Co-operatives in the Jammu and Kashmir State goes to Maharaja Partap Singh. In 1912-13 Maharaja Partap Singh, the then ruler of the State, prepared plan for the development of the Co-operatives. During the year 1913-14, 93 Agricultural Co-operative Societies were organised in different parts.

The salient features of the co-operative societies formed in the Jammu and Kashmir State in the beginning were as follows :

1. A few persons (not less than ten) living in the same village or town or belonging to the same class or tribe, get a Co-operative Credit Society registered for the encouragement of thrift and self help themselves.
2. The main objects of the society were to raise funds by deposits from members and loans from government and distribute the money thus obtained as loan to members.
3. The organisation and control of co-operative credit societies was put under the charge of government official.
4. The accounts of the societies were audited free of charge by officer-in-charge or by the assistant Inspector.
5. There was no restriction on acquiring membership of the society, provided a person is not disqualified in accordance with the bye-laws of the society.

6. The liability of the members of the society was unlimited except with special permission of the officer-in-charge.
7. No dividends were paid from the profit of a society. The profits were carried to the reserve fund, although a bonus was allowed to be distributed in case the funds had grown beyond a certain limit fixed under the law.
8. Loans were allowed only to members.
9. The societies were exempted from fees payable under the stamp, registration and income tax.

With the passage of time co-operative movement developed strong roots in many countries of the world on the varied principles consistent with their economic structure and this necessitated the organisation of co-operative societies on uniform principles throughout the world. Like other States of India, the Jammu and Kashmir State also practices the principles set by the International Co-operative Alliance.

Although in Jammu and Kashmir the pattern of organisation and working was more or less the same but the supervisory machinery and audit system were different from the other States of India. For example, in the beginning there was no separate co-operative department under the Registrar, Co-operative Societies. Similarly the audit was done by the employees of the co-operatives and not by the independent auditors. However, the basic principle of democratic management, one man one vote, voluntary organisation and service motive, etc. were as followed in other parts of the world.

Role of Cooperatives in Rural Development

Planning in a country like India while aimed at promoting rapid economic growth, will have to keep in sharp focus the objectives of reduction of disparities in wealth and income; equality of opportunies; eradication of poverty and improvement in the quality of life of a vast majority of its people. Balanced economic development should aim at the creation of an egalitarian society, based on growth with social justice.

The Co-operative form of organisations readily lends itself to fulfilling these objectives. Almost all legitimate economic activities can be organised on the pattern of a co-operative institution. The co-operative form facilitates organisation of decentralised economic units, at the same time enabling individual members to pool their resources for production on a scale that would be still viable. In the rural sector, where production units are naturally small, numerous and scattered, no economic programme can be carried out meaningfully, unless individual effort is institutionalised on the basis of the principle and impulse of mutual aid. The co-operative form, thus, provides an institutional structure whereby the weaker sections of society and the small producers are brought into the mainstream of development, and are enabled to share the fruits of economic development, ensuring distributive justice.

Thus the co-operative form of organisation has the merit of combining freedom and opportunity for the small man with the benefit of large scale management and organisation. Several other factors like voluntary efforts, mass participation, social control, harnessing of local initiative and resources and above all institutionalisation of a number of economic wants, reflecting the supply and demand for various essential inputs and commodities, render co-operatives ideal instruments to help achieve the policy objectives of the planners and the Government.

In spite of complaints that one hears from time to time, voicing misgivings about their performance and alleged failure to come up to the expectations of the community, the co-operatives are destined to emerge as dominant undertakings in vital sectors of economy like agriculture, animal husbandry, fisheries, housing, public distribution of essential commodities and industries like sugar, cotton yarn and handloom cloth.

The compulsions of the situation can be easily recognised if one looks at the large dimension of the problem of the weaker sections in the rural sector. The 'weaker sections' in the rural sector can be taken as the landless agricultural labour, marginal and small farmers. According to the Agricultural

census (1971), the number of agricultural labourers was 47.5 millions as against cultivators who number 78.2 millions. 70 per cent of the cultivators have holdings of less than two hectares. The figures are shown in Table 15.1.

TABLE 15.1

Operational holdings

(Figures in million)

Size group	No. of operational holdings	Percentage	Area in hectares	Percentage
Marginal (less than one hectare)	35.7	51	14.5	9
Small (1-2 hectares)	13.4	19	19.3	12
Total all sizes	70.5	100	162.1	100

The problem is that 70 per cent of the cultivating families possess only 21 per cent of the land, and it is aggravated by the large number of persons involved. All our planning efforts will necessarily have to be oriented in favour of this large disadvantaged section.

Any planning that ignores these weaker sections will only succeed in creating small new islands of prosperity and conspicuous consumption in the characteristic ocean of absolute poverty. "If the fruits of development continue to be denied to large sections of rural community, while prosperity occurs to some, the resulting tensions, social and economic, may not only upset the process of orderly and peaceful change in the rural economy, but even frustrate the national efforts to step up agricultural production. Considering the rapid growth of population, a special attack on the problem of massive unemployment and mal-distribution of income in the rural sector is imperative. A policy aimed at improving the lot of the

weaker sections, however, will be seriously handicapped in the absence of appropriate administrative structure and rural institutions, suited to organise the million who because of their sheer numbers, cannot be reached otherwise. Indeed, these people can expect to participate in the decision making process, only if they group themselves into organisations which not only help realise their community of economic interests, but also give expression to their needs as producers and consumers in a fast-changing system. The co-operatives are the obvious answer.

Against this background, let us consider the on-going Rural Development Programmes. The most important among these are the Small Farmers' Development Agency Programmes, Drought Prone Area Programmes and the Command Area Development Programmes. There are 160 SFDA Projects, 54 DPAP Projects and 61 Command Area Development Projects. In addition, special projects have also been taken up in the tribal areas. The present endeavour of the Government is to launch Integrated Rural Development, aiming at comprehensive development, pertaining to all aspects of rural economy and covering rural people in the entirety, with special emphasis on the weaker sections, comprising small and marginal farmers, the landless agricultural labourers, village artisans, persons belonging to the Scheduled Castes and Scheduled Tribes, all of whom constitute the rural poor. It may be observed that development of agriculture occupies the central place in all these programmes. This is understandably so as a large majority of the rural population will have to depend on agriculture and all other activities for a long time to come.

All these programmes lay considerable emphasis, among other things, on the development of infrastructure, which will provide the delivery system for inputs and supplies, as well as suitable and remunerative outlets for the produce. A vital role in this regard has been assigned to the Co-operative Organisations. In fact, in the SFDA Projects, development is sought to be brought about the conjunctive use of credit with other inputs, and most of this credit has been coming from the co-operative credit organisations. Similarly, the role of the co-operatives in the spheres of marketing, processing and

storage is no less important. The success of these programmes depends to a large extent on the co-ordination among these institutions themselves and their ability to function in close collaboration with the other agencies involved in the process of development. Such integrated cooperative rural services can go a long way in fulfilling our social objectives. It is not simply enough to enlarge the dimensions of co-operative services within the existing framework. Overall reorganisation of the system with a view to meet the totality of the needs of the rural community, slanted towards the weaker sections, is absolutely necessary. The structure has a pioneering role to play, particularly in areas less endowed by nature, like the DPAP and the tribal areas. It is precisely in these areas that the structure is the weakest, as after all, the institution only reflects the health of the economy of the area. The tasks facing the co-operatives in these areas are really challenging.

It is not our intention here to recapitulate the achievements of the various sectors of the Co-operative Movement. Short-term and medium term co-operative credit has expanded from Rs. 23 crore in 1951 to an estimated Rs. 989 crore in 1976-77. Similarly, long term co-operative credit has increased from a mere Rs. 6 crore during the first Five Year Plan period to Rs. 780 crore in the Fifth Plan. Significant strides have also been made by the co-operative sector in the fields of agricultural marketing, processing, storage and distribution of inputs. However, it is necessary to consider at this juncture, the actual contribution made by this sector to the process of development and particularly the services rendered to the weaker sections, for whose benefit the co-operatives first came into existence everywhere. If one takes the credit sector, the proportion of loans flowing to the weaker sections, remains more or less stagnant at about one-third of the total quantum of loan advanced in the country, for the last five years. This is so in spite of a number of liberlisations and concessions made in favour of the weaker sections during this period. A number of organisational changes have also been made including the setting up of Farmers' Services Society, specially designed to services the small Farmers. The recent

legislation in many States relating to universalisation of Co-operative membership is another step in this direction.

Estimates will soon be made of the support that is required from the Co-operative Sector as a whole for the success of development programme in the various fields in the Sixth Five Year Plan. Some estimates made by bodies like the National Commission on Agriculture are already available. The indications are that the task before the Co-operative will be immense. One can, however, be hopeful that the targets set for them will be achieved as in the past. The targets will of course have to reflect an 'integrated approach' to rural development problems. In simplest form, this approach means that various elements like credit, farm inputs supply, processing, marketing, extension services and price incentives will have to be handled together. Appropriate technology coupled with adequate managerial skills will also be vital to this approach. The institutions will have to be strong enough in this first place to tackle the whole gamut of these problems.

Development

The Co-operative movement made a steady progress between 1950-51 to 1975-76 as shown in Table 15.2.

During these 25 years as shown in Table 15.2 the membership of co-operative societies increased from 1.49 lakhs to 4.23 lakhs. The progress was little slow in the 50s but picked up in 1960-61. Between 1960-61 to 1965-66 the membership increased from 2.71 lakhs to 3.12 lakhs. It went up further to 3.72 lakhs in 1970-71 and finally to 4.23 lakhs in 1975-76.

The number of societies existed in 1960-61 is not available but the number of co-operatives stabilised at 1050 in 1965-66. This number shoot up to 1702 in 1970-71 and remained practically at the same level in 1975-76.

The funds owned by these co-operatives which stood at Rs. 54.15 lakh in 1950-51 went up to Rs. 82.60 lakh in 1960-61. A spurt was noted in 1965-66 which pushed up the figures of owned funds to Rs. 135.24 lakh. The trend continued upto 1970-71 which raised the amount of owned funds to Rs. 296.89

TABLE 15.2

Growth of co-operative movement

Sl. No.	Year	No. of Societies	Membership (in lakh Nos.)	Owned funds (in lakh rupees)	Working Capital (in lakh rupees)
1.	1950-51	N.A.	1.49	54.15	93.00
2.	1955-56	N.A.	1.99	41.21	143.00
3.	1960-61	N.A.	2.71	82.60	492.00
4.	1965-66	1050	3.12	135.24	928.00
5.	1970-71	1702	3.72	296.89	2445.67
6.	1971-72	1347	3.49	169.19	1756.48
7.	1972-73	1420	3.63	201.73	2073.19
8.	1973-74	1550	3.85	237.25	2372.91
9.	1974-75	1647	4.06	257.37	2805.03
10.	1975-76	1700	4.23	284.50	2897.68
11.	1980-81	1848	5.20	1061.59	9563.86
12.	1981-82	1881	5.26	1233.34	10903.39
13.	1982-83	1921	5.50	1495.93	13306.82

Source : Registrar Cooperatives.

lakh in 1970-71. There was a little shortfall in 1975-76 which is evident from the table under reference. The amount of working capital increased by leaps and bounds from Rs. 93 lakh in 1950-51. It went up to Rs. 143 lakh in 1955-56, Rs. 492 lakh in 1960-61 and Rs. 928 lakh in 1965-66.

There was a major break through which pushed up the working capital to the new heights of Rs. 2446 lakh in 1970-71 and Rs. 2898 lakh in 1975-76. The IV Plan envisaged re-organisation of the primary societies into viable units. With the

steady increase in business the conversion of loans reorganisation programme was not considered necessary especially in the plain areas where the Societies handled more business and started becoming viable. In the hilly areas the amalgamation programme became impracticable as increase in the area of operation would have been at the cost of accessibility. In these areas it was proposed to re-organise the Societies into a Block level service co-operatives operating with a number of depots affiliated units. Two Farmer Service Societies were expected to be set up during 1973-74. These Block level societies were expected to provide all possible business and service to the farmers such as Short, Medium and Long term credit, marketing and processing facilities and consumer goods etc.

In order to remove the administrative weaknesses in the Co-operative movement it was decided to form common cadre of Accountants and a beginning was made in 1973-74. It is expected that 600 trained Accountants would be with the Societies by the end of the IV Plan. Similarly, a common cadre of management for the Co-operative banks was formed in 1973-74.

In order to eliminate the vested interest in the Co-operative movement amendments to the Co-operative Laws were made during 1972 to limit the term of members of managing committees. Representation of backward classes was also provided for and restrictions were imposed as regards the number of societies in respect of which one person would be an office bearer.

The object of the Vth Plan is to develop the Co-operative movement to provide infrastructure for the development of rural areas. This will require the strengthening of the Co-operative movement both organisationally and financially so that the Societies become viable and that all the services required by the members are rendered by the Societies. It is also necessary to increase the coverage of membership so that all the rural families are represented in the Co-operative movement.

The strengthening of the structure of primary societies will be achieved by increasing the business of these societies. Apart from expansion in the supply of Short term credit efforts will

be made to expand Medium and Long term credit especially in the schemes run by S.F.D.A. and M.F.A.L. schemes for which refinance would be available from the Agricultural Refinance Co-operation. In order to enable the societies to handle a larger quantity of agricultural inputs the societies are proposed to be assisted by providing them share capital contribution so that they are able to borrow adequately from banks.

Improvements in the management of primary societies would be made by the expansion of the common cadre of Accountant-cum-Managers and strengthening supervision by the Central Banks over the Primary Societies increase in coverage during 5th Plan was expected to be 100% and every rural family is proposed to be brought within the co-operative fold. An expansion in the number of viable societies is, therefore, proposed. The number of societies is expected to increase from 1104 to 1404.

The existing procedures regarding sanctioning of loans, recovery, marketing, input of agricultural products will be further streamlined.

For achieving the objectives set in the 5th Plan, an outlay of Rs. 40.00 lakh was made for the Agricultural credit and Rs. 307.00 lakh for other co-operative schemes.

Various kinds

I. *Primary Agricultural Credit Societies*

Agricultural Credit societies are the kernel of the Co-operative movement. They laid the foundation stone of the Co-operative Credit structure. The objects of these societies show a good deal of variation. Most of them have, however, been organised with a view to provide credit facilities and inculcate the habit of thrift and economy among their members. Most of these societies were originally formed on Refined model, though recently there has been certain significant deviations from the orthodox principles. The essential elements of a Raiffeisen society are a restricted area of operation, unlimited liability, gratuitous management and permanent indivisible reserve fund. Most significant deviations are in respect of liability area of opera-

tion, management and participation of the government in the society as a shareholder. These deviations have been regarded as revolutionary and they mark a complete break from Raiffeisen model.

The primary credit function at the village level having only individuals as their members. A few persons (not less than ten) living in the same village or town can register a Co-operative Credit Society. The main objects of a society is to raise funds by deposits from members and thus encouraging thrift and self-help among themselves. The information regarding number of Primary Agriculture Credit Societies, Membership owned Funds and working capital from the year 1971-72 to 1975-76 is given in Table 15:3.

TABLE 15.3

Primary agricultural credit-societies, membership, owned funds and working capital

(Rs. in lakh)

Sl. No.	Year	No. of Societies	Membership (in lakh Nos.)	Owned funds	Working Capital
1.	1971-72	1147	3.07	86.96	923.31
2.	1972-73	1206	3.23	98.11	972.37
3.	1973-74	1298	3.39	112.72	1346.92
4.	1974-75	1377	3.56	124.44*	1624.09*
5.	1982-83	1558	4.17	373.63	2854.92

*Provisional.

Source : Registrar Co-operatives.

The primary credit societies generally provides short term and medium term credit to the agriculturists for seasonal agricultural operations directed towards raising of crops, including a reasonable amount for the maintenance needs of the farmer and his family. Short term loans are generally made for 12

months. They are given for purchasing seeds, manures and fertilizers or for meeting labour charges etc. and are to be repaid after the harvest. In the words of All India Rural Credit Review Committee the short term credit is "a kind of a lump sum accommodation to fill up the gaps in outlay which cannot be met from the cultivator's own resources during the non income period between two harvests". The medium term loans advanced by the societies ranges from over 12 months to 5 years. These loans are meant for such purposes as reclamation of land, purchase of livestock, construction of drains in the fields etc.

In the beginning the main purpose of primary agricultural credit societies was to make credit available to the members but later on, diversified into various other fields functioning as multipurpose credit societies. The position of loans (advance/loan) due from members is given in the Table 15.4.

Member hip of the Primary Credit Societies is open to all persons of a good character residing within the area of operation of the society. For the registration of a society there is a need for a minimum of 10 members. According to the recommendations of the All India Rural Credit Review Committee the size of the societies should be large with large membership for their efficient working as an economic unit.

II. *Non-Agricultural Credit Societies*

1. *Hilly Sale and Service Societies* : After 1975, when the present Government assumed office under the stewardship of Sheikh Mohammad Abdullah, a great stress was laid on the development of hilly and backward pockets and the co-operatives were marked as an instrument of paramount importance to bring about the social and economic transformation of these areas. It was realised that a broad-based and effective organisation to ameliorate the economic condition of the weaker and backward sections of the society was the need of the hour. Consequently, sale and service societies with the nomenclature "Hilly Sale and Service Societies" were established to provide integrated package of services like Credit

TABLE 15.4

Position of loans of the members

(Rs. in lakh)

Sl. No.	Year	Loans advanced	Loans due from members	Amount over due from members
1.	1950-51	2.91	18.99	9.93
2.	1955-56	30.77	20.13	3.51
3.	1960-61	107.96	113.13	24.03
4.	1965-66	59.18	169.70	107.35
5.	1966-67	119.52	228.35	91.76
6.	1967-68	376.22	306.42	108.28
7.	1968-69	289.90	262.00	82.00
8.	1969-70	346.40	309.29	185.66
9.	1970-71	215.44	200.54	110.88
10.	1971-72	421.96	353.96	87.14
11.	1972-73	327.62	442.48	105.65
12.	1973-74	263.28	637.67	154.24
13.	1974-75	231.77	550.44	191.03
14.	1975-76	198.54	740.25	212.87
15.	1982-83	628.88	1129.28	586.97

Source : Registrar Cooperatives.

supply of essential articles including agricultural inputs. The societies also arranged marketing of the produce of the villages. There are at present 30 Hilly Sale and Service Societies in the State.

2. *Marketing Societies* : Marketing Societies in the State are working as a link between the primary and the Appex federations in channelising the supplies inclusive of essential commodities and agricultural inputs. The details are given in Table 15.5.

TABLE 15.5

Marketing societies, their membership, owned funds and working capital

(Rs. in lakh)

Sl. No.	Year	Number of Societies	Member-ship (lakh Nos.)	Owned funds	Working Capital
1.	1971-72	68	0.16	45.21	740 02
2.	1972-73	68	0.16	35.60	933.42
3.	1973-74	71	0.16	37.55	757.43
4.	1974-75	78	0.17	43.06*	86 14
5.	1975-76	78	0.17	53.47	1048.65
6.	1982-83	85	0.222	425.51	2092.75

*Provisional.

Source : Registrar Cooperatives.

In the year 1973 the Government have handed over the work of procurement and husking of paddy to the Cooperative Societies instead of Food Corporation of India. This decision will help encourage producers to supply quality rice on reasonable rates.

The Government have also cancelled licences issued to the dealers for purchase, sale or storage of coarse and semi-fine varieties of paddy or rice. This will eliminate the middlemen who exploit both consumer as well as producer by hoarding and earning substantial profit. With these decisions the targeted quantity of 4.75 lakh quintals is expected to be exceeded.

The co-operatives are supplying coarse rice and semi-fine quality of rice at the rate of Rs. 121.00 and Rs. 142.50 per

quintal respectively. The Food Corporation of India supplies these types of rice at the rate of Rs. 124.50 and Rs. 156.00 per quintal respectively. In this way the Government will be benefited to the tune of Rs. 50 lakh.

3. *Fruit Growers Co-operative Societies* : To provide timely credit and marketing facilities to the fruit growers, separate fruit growers societies have been set up in the compact fruit belts. The statistics pertaining to this is given in Table 15.6.

TABLE 15.6

Share capital, membership of fruit grower co-operative societies

Year	No. of societies	Member-ship	Share Capital individual	Government (Rs. in lakh)	Quantity of Fresh Fruit marketed. (Boxes in lakhs)
1975-76	29	2982	—	0.43	2.25
1976-77	47	4440	—	0.29	4.28
1977-78	58	5365	7.71	0.20	4.07
1978-79	67	6334	9.73	0.0	4.50
1982-83	110	10582	N.A.	N.A.	N.A.
1983-84	120	11228	N.A.	N.A.	N.A.

4. *Transport Societies* : A number of Transport Societies in the State with which Drivers and Cleaners have associated themselves as its members. These societies have been set up with a view to bettering the lot of the drivers and cleaners. The figures showing number of such societies etc. are indicated below :

(a) Number of Societies	52
(b) Membership	2,157
(c) Share Capital	Rs. 16,33,000
(d) Total vehicles	66

5. *Women Co-operatives* : In the field of Women's Welfare, the Co-operative Department has recently formed Women Co-operatives allowing the management and its working to its women members. These societies not only provide commodities to its members but also unite them into a working group of handicrafts thereby providing a part-time job to the household women resulting in their economic development. Two such societies are functioning at present in the State.

6. *Rural Electrification Co-operative Rocieties* : After 1975 during the year 1977 the registration of Rural Electrification Co-operative Society at Samba in Jammu is the first of its kind. The society came into existence with the close co-operation of Rural Electrification Corporation Ltd. and with the participation of the people and the State Government.

7. *Saffron Grower Co-operative Society* : Saffron Growers Cooperative Society has been organised at Pampore to provide finance, marketing facilities to saffron growers. An arrangement exists for training the personnel of the co-operative department and institutions that the movement does not suffer for want of trained personnel. A training school has been set up for imparting training to subordinate personnel which include sub-auditors and supervisors of co-operative department. 522 candidates have received training so far.

8. *Industrial Co-operative Societies* : The number of such societies has risen from 110 in 1974 to 252 in 1978-79 with membership of nearly 10,000 persons. The production of these societies was Rs. 60 lakh and the sale went up to the tune of Rs. 85 lakh in 1978-79.

9. *Fishermen Co-operative Society* : There is only one such society with a total membership of 600 fishermen.

Diversification of Co-operative Activities

1. *Procurement* : The procurement work is being carried on by the Co-operatives. From 1975 the Co-operatives played a significant role in this direction and has achieved the target of 4.57 lakh quintals of paddy and 1.62 lakh quintals of wheat. This has reduced the import of paddy to the State which

otherwise was to be incurred if allowed to have been handled by Food Corporation of India as per previous practice.

2. *Cooking Gas* : During the year 1979, the Co-operative Department has given the agency for supply of cooking gas and the work has been taken up in hand. So far 6,600 gas connections have been allotted for distribution and Central Government has allotted additional quota of 50 tonnes of gas.

3. *Pesticides and Insecticides* : Recently for the first time, the Co-operative Department has been entrusted with the procurement of pesticides and insecticides to be taken up by the J&K State Co-operative Agricultural Federation. Pesticides and insecticides valued at Rs. 2.00 crore are expected to be handled by it.

4. *Fertilizer* : A net-work of primary agricultural cooperative societies has been set up in almost every *patwar halqa* to make available agricultural inputs such as fertilizers. Similarly, under the scheme streamlining the working societies are affiliated to marketing societies generally at the block level which in turn are federated into the Apex Consumer Federation and Apex Agricultural Federation.

16

Road Transport

Transport plays an important role in the economic development of the State, particularly so when the entire dependence is on road transport, because our State enjoys in a limited way the benefits of rail link, which is extended only upto Jammu.* The Government is, therefore, conscious of the importance of this industry and its role in the overall economic development of the State. The Government is also aware of the fact that it is primarily a public utility service and so its activity has to be organised in such a way as it can provide efficient and better service to the travelling people at reasonable rates. Mostly the performance of a particular establishment or industry is gauged by its output and the returns in terms of money. But in case of transport whereas the attempt is always to ensure that it can be a commercial proposition but at the same time the fact is not lost sight of that we have a social commitment to fulfil to help in building up good accessibility for the remote and far-flung areas. It is against this backdrop that the Government has been trying to evolve its policies about the transport system in the State as a basic infrastructure for development.

The transport industry, which was the monopoly of the private transporter was shared by the Government in 1948 and also by the Cooperatives in 1955. It has made a rapid progress especially, in the mechanised transport.

* It is proposed to be extended upto Udhampur. The work has already started.

The over all activity of transport has shown marked progress and the number of vehicles on roads has made a great stride during the past eight years. The trends of important categories of vehicles are reflected in Table 16.1.

TABLE 16.1

Progress of vehicle population in the state

Year	Total number of vehicles (public + private excluding tractors and trailors)	No. of vehicles per	
		100 Kms of road length	Lakh of population
1974-75	19098	261	373
1977-78	23912	298	432
1980-81	34480	420	577
1981-82	41524	488	677
1982-83	45889	484	729

The total number of vehicles has more than doubled while the number per 100 sq. Kms. of area and per lakh of population has also moved in the same direction at a faster rate.

Development of Public Sector

The Government Transport Department came into existence in the year 1948-49. To carry on the activities, the Government granted a loan of Rs. 48,83,740 at 6% interest. The entire fleet was split into Jammu-Srinagar and Jammu-Pathankot batches. The Department created funds in which all the revenue were credited and from which all the expenditure was drawn. But this method was objected to by Auditor General as a result the fund was abolished and the department was placed under normal budgetary control of the Government. In the year 1965, the Government reorganised the department bifurcating it into

two separate units to function independently of each other. The units were as under :

(1) Transport Undertakings called GTU
(2) Traffic, Taxation and State Motor Garages Deptt.

In this way, the Government Transport Undertaking came into existence with three operational units each at Srinagar, Jammu and Pathankot with small sized workshop on regional basis each at Jammu and Srinagar. A compact picture of fleet growth reveals that there was only 256 vehicles in 1948-49. This number was followed by 406, 488, 608, 1087, 1085, 1122, 1119 and 1311 in 1950-51, 1955-56, 1960-61, 1965-66, 1966-67, 1968-69 and 1973-74 respectively. This makes an increase of 412 per cent in 1973-74 over the base level of 1948-49.

The fact further show that Bus Services were introduced in 1950-51 when Truck Services occupied more than 96% of share in the total number of vehicles. In such a way, the Government Transport Undertaking operated load carriers as well as passenger Bus Services throughout the State side by side with these of private operators.

Load carriers were meant to carry raw material and essential commodities. The Undertakings have also an agreement with Defence Forces in the State for the carriage of Stores etc. while on the side of passengers transport it was categorised under four distinct classes such as Tourist fleet, Rural fleet, the City fleet and Sight-seeing Services. The ratio of goods operations to passengers was 2 : 1.

So far as the pattern of load carriers operation is concerned, the Undertaking operated only goods fleet at the early start of 1948-49 on Srinagar-Pathankot route but later on there was an increase in the field of goods operations by increasing the number of routes as well as the fleet. The Undertaking carried 49.82 lakh maunds in 1967-68. The data of Government Transport Undertaking reveals that a shortfall of 9% was recorded in 1969-70 from the income carrying goods of Government and private account. This shortfall was compensated when an increase of 8% was made in 1969-70 over the base

level of 1967-68, in the income earned from Army and Beacons.

Coming to Passenger side, the Government Transport Undertaking started A Class Tourist Bus Service from Pathankot to Srinagar in 1950-51. In 1952-53, the Inter-State and Sight-seeing Services were started. B Class Bus Service was started in 1959-60 with above operation the Undertaking has made considerable progress in its operational activities. The volume of work reveals an increase of 17% in 1969-70 over the base level of 1967-68 on the whole. An increase of 12% and 19% in 1969-70 was recorded in the route mileage and in number of schedules respectively. The interesting thing was that an increase of 24% in effective Kms and 19% in Dead Kms. was recorded in 1969-70 over the base level of 1967-68. The facts further reveal that an increase of 29% in 1969-70 was made in the total number of passengers carried. In the gross income also an increase of 52% was recorded in 1969-70 over the base-level of 1967-68.

City Service was also introduced in the Kashmir Divisions in 1953-54 and 1954-55 respectively.

Above mentioned facts made it clear that the Jammu and Kashmir Government Transport Undertaking caters to the needs of the Army, Civil and the public in general in respect of passegers and goods traffic to the maximum possible extent.

For the 5th Five Year Plan an amount of Rs. 700 lakh was earmarked for this sector out of which Rs. 422 lakh was to be utilised for the expansion of passenger fleet and Rs. 122 lakh for Goods-fleet. Besides an amount of Rs. 124 lakh was to be spent on the establishment of Central Workshop and the expansion of Regional Workshops. It was recommended by the Jha Committee and Dr. Naresh Prabhakar in his Ph.D. Thesis that the Government Transport Undertaking should be converted into an autonomous Corporation.

Accordingly, Road Transport Corporation was established on 1st September, 1976, by conversion of erstwhile Government Transport Undertaking into J & K Road Transport Corporation. The Road Transport Corporation has, therefore, traversed quite a long distance from the stage of a Government

Department in 1948 to the State of an Undertaking and finally to the present status of a Corporation in 1976. On the eve of conversion the Road Transport Corporation had the fleet of 544 buses and 692 trucks and its assets were valued at Rs. 410 lakh. Most of the fleet then transferred to the Corporation consisted of limping and obsolete vehicles. The Transport Corporation, therefore, in order to achieve the social objective of providing the dependable and efficient services had the first task of reorganising its fleet.

The fleet strength of the Road Transport Corporation by end of March, 1979, increased to 754 buses and 630 trucks. For the year 1979-80 the target was fixed for acquisition of 184 buses, 50 of which were to be by way of replacement. The target for the same year for carriage of passengers roughly represented 300% increase over the figures of 1975-76. The total kilometreage operated by the Corporation by the end of last year was 525 lakh kilometres as against 483 lakh kilometres operated during the year 1976-77.

The Corporation is not only providing adequate service but its aim is to provide safe and comfortable travel to the public. It is also building up amenities at the various bus stops and an attempt is being made to build up modern bus stops where all possible facilities are available to the travelling public. Accordingly, Super-Deluxe and Air Conditioned buses have been introduced on the National Highway and for sight-seeing purposes to cater to the requirements of both the home and foreign tourists.

Carriage of Fruit

One of the important services rendered by the public carriers is the movement of fruit which is of great economic importance to the State. The Transport Department has been able to organise about 24000 trucks during the year 1978-79 for carriage of 3.30 lakh tonnes of fruit to different parts of the country. During the year 1979-80 the Transport Department also made arrangements for the carriage of goods and material and other items of essential supplies to Ladakh.

During 1981-82, out of a total of over 43 thousand vehicles

the State Road Transport Corporation accounted for a total of roughly 1400 vehicles. During 1982-83 out of the main vehicles of buses and trucks the number operated by the undertaking was 1363 out of total of 0.14 lakh such vehicles in the State. Thus the Corporation accounts for nearly 8% of the bus and truck fleet in the State. The Corporation has made considerable progress especially in the case of the passenger traffic and the number of buses has increased by 50% from 506 in 1974-75 to 788 in 1982-83. The Corporation has come out to ply on 76 more routes and runs 231 routes against 155 in 1974-75. The route kilometreage covered has also shown a tremendous increase from 8448 Kms to 13119 Kms. The number of passengers carried has nearly doubled from 132 lakhs to 219 lakhs in 1982-83. The number touched the level of 270 lakhs in 1979-80. Correspondingly the volume of goods carried has also made considerable improvement from 15.24 lakh quintals in 1974-75 to 81.51 lakh quintals in 1981-82. The salient features of the working of the Corporation are indicated in Table 16.2.

Development in Private Sector

Till 1947 the whole Transport Industry belonged to private persons having a total fleet of 954 vehicles. This included more than 59% of buses because during these days the buses were passed for carrying goods as well as passengers.

Dealing with goods traffic two kinds of operations are dealt. One is the carriage of goods on one's own called "Private Carriers" and the other is on hire called "Public Carriers". The transportation of goods on own account is important in the State. Vehicles operating as Private Carriers ranged from small delivery van to full-size trucks depending upon transport requirements of owners. Light vehicles are used in distribution in and around the cities while heavy vehicles are used for carriage of logs from forests and for carriage of other materials.

The above pattern of ownership by and large reflected the nature of transport demand for which they are used in the

TABLE 16.2

State road transport corporation

Description	Magnitude in					
	1974-75	1977-78	1980-81	1981-82	1982-83	1983-84
1. Fleet strength	1246	1305	1473	1390	1393	1422
2. No. of buses and trucks	1199	1270	1432	1348	1363	N.A.
3. Routes operated (No.)	155	152	231	231	231	257
4. Route kilometreage (Kms.)	8448	6948	11692	11692	13119	13818
5. Passengers carried (lakhs)	132	226	264	218	219	216
6. Good carried (lakh qtls.)	15.24	28.78	39.10	39.70	40.34	45.96

State. On the other hand public carriers also play a dominant role in the movement of goods both within and outside the State. Earlier, public carriers were subjected to route permit system. Such restrictions imposed on the operation resulted in shortage of vehicles on certain routes. Knowing this fact the State increased the number of permits on each route but this increase was only marginal. Keeping in view the above shortcoming the State Government abolished route system and extended operational validity to all routes in the State. This had a tremendous impact on the availability of vehicles. In addition to this some vehicles under public carriers have also been permitted to undertake inter-State operation in accordance with agreements made with other States.

It will not be out of place to mention here that Buses constitute the most important mode of passengers transport. Long

distances Services are provided on Pathankot-Jammu-Srinagar route. This route is served by distinct services called A Class and B Class Services. A Class bus service is provided essentially on Srinagar-Pathankot and Jammu-Srinagar routes, whereas B Class Services operate mainly on Jammu-Srinagar route. A few inter-provinces services particularly to the border area of the two Provinces also in the operation of private sector. There is a facility for catering of buses available to parties or groups.

Taxi Service forms a small part of the passengers transport system in private sector in the State. These have statewise operational jurisdiction but generally confine their operations to Urban areas. However, these play a significant role in providing inter-city Service operation is mainly confined to a single route in the pilgrim season for going to Vaishno Devi Shrine. In Srinagar the utilization of taxi service is much higher than in Jammu. Tempos are also operated in the State within the cities. Their operations are confined to routes connecting the city centres with its out-parts which were lately replaced by the introduction of Mini Buses (Matadors).

Development in Cooperative Sector

In Jammu and Kashmir State the organisation of transport Societies was mainly intended to achieve the following objectives :

(1) To purchase buses and trucks for operation.
(2) To maintain and equip Workshop for conducting repairs.
(3) To transport and arrange for the transport of goods.
(4) To request the Government for issue of Service Licence for plying vehicles in the State.
(5) To arrange necessary financial assistance.
(6) To arrange necessary technical training.

In order to achieve the above objectives the earliest attempt to introduce transport in cooperative sector was made by Shri

Ganga Singh of the Democratic Party who formed the J & K Mechanics and Transport Workers Cooperative Society Ltd., Jammu with other 10 transport workers in 1955. The society was organised on the understanding given by the then Government that route permits for plying of vehicles will be given but due to some difference of opinion between the two, the Society entered into prolonged litigations as a result of which no permit was issued to the Society to undertake operations. The society went to the Supreme Court to get the justice. After a very long time the Society won the case and few permits were issued by the Government. Later on special attention was given by the Government of Jammu and Kashmir to develop the Cooperative Transport Societies on sound lines as a result of which many other transport societies were formed and licences and permits were granted to them.

The overall development of transport in cooperative sector shows that the number of societies went on increasing.

Transport Policy

The broad objectives of the transport policy in the State are to provide adequate efficient and economic transport system in the State at a reasonable rate and to provide uninterrupted, quick and prompt haulage of goods to various places. The task in this regard was to bring about proper thinking and planning in the sphere of Transport industry, which hither-to-fore was organised on an ad hoc basis without a clear and specific approach. The first attempt made in this direction was to lay down clearly the transport policy both in regard to public carriers and the State carriages. The Government came up with a definite policy in 1976 which is commonly known as the Transport Policy Announcement of 1976. It was decided to nationalise passenger services in the phased manner. Passenger Services on the Inter-State routes, Jammu-Srinagar, Jammu-Pathankot and Srinagar-Ladakh, City Operation in Jammu and partial city operation in the valley were nationalised in the year 1976. Subsequently, two other routes were added to the nationalised routes viz. Srinagar-Katra and Pathankot-Katra.

The second phase of the nationalization is proposed to be undertaken after the operation of services on the existing routes, is stabilised. However, to ensure that the private operators are not completely displaced, they have been granted the alternative routes. The only exception in the internal routes is the Ladakh route which has been left open for private operation to the residents of Ladakh. This is done to encourage local people to come forward to utilize this facility.

For effective and efficient transport system it is imperative that a regular feed-back system is developed. To achieve this objective a Survey Cell has been set up to assess at regular intervals the requirements of the transport facilities on various routes. 168 routes were got surveyed and rescheduling of certain operations and additions in services were carried out. Alongwith this a monitoring Cell has also been instituted at General Bus Stand to ensure the regularity of service operations. These efforts are proposed to be intensified during the current year. The Government has also started a system of ensuring complete involvement of the public through their representatives both in executing the transport policies as well as ascertaining their requirement for transport. Accordingly, meetings are held with the MLA's and MLC's of the different areas at the highest level of the Transport Department to undertake measures for the improvement of the Transport system in the State.

With a view to providing employment facilities to the unemployed youth as well as to undertake the conversion of the slow moving transport such as tongas, a scheme of Mini buses was started in the State. Subsequently, the Government, realising the limited carriage capacity of these Mini-buses and the high drawing cost involved, came forward to help these people and accorded permission to the conversion of the Mini-buses into bigger wheel-base buses. This was a welcome step which improved to a great extent the repayment capacity of the operators and made it a viable proposition.

Recently the State Government has decided to join the All

India Tourist Scheme which was introduced by the Government of India with a view to providing facilities to the tourists. Under this scheme the State Government has been allotted tourist permits for 50 Mini-buses and 100 taxi cab permits. This scheme will help the flow of the tourists from all over the country and it will also provide an opportunity for our Road Transport Corporation buses being primarily designed for sight-seeing purposes to operate outside the State.

Another epoch-making reform that was introduced in the State was the rationalization of the Transport Policy with regard to public carrier permits which hither-to-fore tended towards creation of a monopoly situation. The Government liberalised the policy of the grant of public carrier permits which can be obtained by any desirous person by depositing a permit fee of Rs. 5,000. Having gained experience from the working of this policy, the Government have also recently liberalized the transfer of the public carrier permits on the payment of a fee of Rs. 500 only. There is no route system in the operation of public carrier permits and they can operate in any part of the State. Although a number of measures have been undertaken to provide a bigger operational area to the truck operators within and outside the State, yet the scope for its advancement was limited to a few regulated systems like that of the National Permits, North Zone Permits and Ad hoc Permits.

17

State Income

Introduction

National Income Estimates measure the volume of commodities and services turned out during a given period. It provides a wide view of the country's economy, as well as of various groups of population who participate as producers and income receivers. It is also an indicator of the changes in a country's economy over a period of time. The estimates, in addition to providing wide view of the whole economy distinguish the significant operating sectors and functions and reflect interconnections existing among these. It serves as a yardstick to measure the total net product and growth of a country over a period of time.

The measurement of national income has engaged attention of Economists and Statisticians for the past three centuries. During this period, not only the concepts of production, national income and expenditure have been refined and broadened but also the coverage of national income accounts has been extended to provide a quantitative and meaningful picture of the economy. The emphasis has shifted from mere estimation of size of National Income to an integrated and inter-locking set of national accounts, each of which presents the inter-relationship of the various aggregates and their components which help in the exposition of the nature of the transactions taking place in the economy.

In economic literature of recent years, frequent references can be found to the terms of Economic or Social Accounts of a nation. This is a much wider term that the national income accounts and embraces various kinds of economic accounting system. Some important branches of the economic accounts are the input-output system, Flow of Funds accounts, balance sheets and national wealth estimation. Each of these accounts focuses attention on different aspects of the economy. The input-output accounts are concerned with inter-industry relationships and classify inputs and outputs in terms of Industries supplying inputs and purchasing outputs. A Flow of Funds give a detail of transactions involving use of money and credit and changes in the financial assets and liabilities of the various sectors of the economy. All these different estimates are concerned with flow to complete the picture on account of stocks in the form of a set of a balance sheet. Balance sheets for different sectors of the economy which reveal the sectoral distribution of assets has very recently been introduced. The combined balance sheet for the entire nation shows national wealth i.e. value of domestic stock of physical capital and net claim on foreigners.

Historical Background

Earlier schools of economic thought did not define the concept of National Income rigidly. They often regarded national income synonymous with national wealth and did not clearly distinguish between the concept of stock and flow. In the Sixteenth and Seventeenth centuries the Mercantilist school measured economic prosperity of the country in terms of gold and silver reserves and advocated that economic policies should be aimed at enlarging these reserves. They confused national wealth with national income. It was, however, in the second half of the 17th century that Sir William Petty prepared estimate of the current income of England. He also did not formulate a precise definition of national income but he recognised its analytical importance. He is, therefore, considered to be originator of modern income analysis. It was

Gegory king who in later part of 17th Century, took account of annual income of the nation its annual expenses and yearly increase in nation's wealth. He also prepared estimates of per capita income of different social classes and presented an idea of distribution of national income. The physiocrats of 18th century shifted the emphasis from trade to production and to creation of wealth and surplus available for circulation in the economy. He regarded agriculture and extractive industries to be the only productive occupations capable of creating surplus over and above the investment of capital of labour expended in their products. The non-agricultural occupations were not deemed to be entirely useless as society benefited from their work but they were sterile in as much as they did not create any true surplus and merely reproduced the value of their labour and of the material inputs. Quesnay, one of the founders of this school of thought made a very important contribution by tracing and analysing circulation of nation's net product in various occupational groups in the economy. His work served as forerunner of input output analysis, associated with the name of Prof. Wassily Leontief of Harvard University.

The chief characteristics of Quesnay's contribution were that he treated national income as flow of funds from one section to the other and distinguished between outlays representing capital formation and current consumption. The classical economists analysed the significance of different factors which determined the size and the rate of change of national income and enlarged the definition of national income to include return of labour engaged in the production of material goods. Adam Smith also classified the concept of national income and distinguished between gross and net income. While the controversy about productive and unproductive labour was going on, Karl Marx came out with a strong support for the Smithian doctrine though for entirely different reasons. According to Marx, the division of labour into productive and unproductive had nothing to do with character of labour or its product and in capitalists system of production the main criterion for class of labour to be productive or unproductive was the fact whether it did or did not contribute to the profits of the entrepreneurs. He

developed his theory of surplus value, which formed the corner-stone of the socialistic system which he advocated. According to him, the labour was the only productive factor which created surplus value. Marx distinguished between gross and net output and gross and net income. On the income side he defined gross income of the economy to consist of wages, profits or rent. Marx's concepts of national income are followed in the estimation of balances of national economic of the Communist countries. In the early years of the 20th century investigations into national income accounting were mostly carried out by individuals. Lack of comprehensive data and proper financial and institutional support stood in the way of its development. The problems of the First World War brought in its wake new impetus to the measurement of analysis of national income. Standardisation of various concepts and definitions assumed importance. The appearance of Keyne's book *Theory of employment, interest and money* provided a great fillip to the study of national income. He brought about the mutual relationship between national income consumption and investment and savings which could be measured statistically. The need for such statistics were recognised officially. The estimates of national income were generally arrived at primarily by the income method and supplemented where necessary by the expenditure approach. The emphasis was on individual tables and not on interlocking set of integrated account. Under the impetus if theory and because of growing importance to government expenditure during the Second World War, the construction of accounts from the expenditure side also began to receive equal attention. The double entry national accounts of income and expenditure were accepted and the next move was to extend them to sector accounts so that quantitative picture of the economy in suitably classifed aggregates of transaction could emerge. The presentation of national income data in a set of accounts enabled the economic analysis trace the effects of different policy measures on the various sectors and variables of the economy and this explain increasing use of the national accounts data for the purposes of official policy

making, development planning and measuring and forecasting consumption outlays, capital formations and savings of the nation.

With the growing use of national income accounts for' analytical and policy purpose, it was felt that there was a need to standardise the concept and forms of presentation for the international comparison. In 1947 the league of Nation's Committee of Statistical experts published a report on the Measurement of National Income and construction of Social Accounts, which paved the way for adoption of a double entry accounting system for various sectors of the economy. This was revised by the U.N. system of national account in 1953 and 1968, when a revised version was published it is known as a system of national Account.

State Income

One of the major objectives of economic development policies is to secure balanced growth in all sectors and the regions of the economy. In order to achieve the objective of balanced economic development, the resource mobilisation and resource allocations have to be so geared and directed that resultant aggregate growth of national product and its State level distribution brings about a balanced regional pattern. Keeping in view the importance of regional developments need for compilation of estimates of income at State level has been felt. These estimates are useful to gauge the economic growth of different States and help us in inter-State comparison of :

1. Level of Industrial and Economic Development and estimate of growth of economy.
2. Productive efficiency of factors of production in different States over a time.
3. Removing and narrowing the disparities in income.
4. In locating the backward regions, arrears and pockets, and

5. To measure the efficiency of different sectors of the economy.

These estimates of income serve as a broad measure of the economic welfare to the residents of the individual State and are useful in determining the rate of savings and taxable capacity of the people. The State income estimates also play an important role in deciding the allocations of development expenditure in the context of formulation of State Plan with a view to achieving the balanced growth and also help us in deciding allocations of new productive efficiency of various factors.

Measurement

The measurement of National Income can be approached in three ways :

1. by using information on income?
2. production or
3. expenditure.

The three approaches lead to the same total provided the definition of income, output, or spending are consistent. In measuring national income by the production or expenditure route, one must be careful to avoid double counting. The method of using production approach is not easy for most of Industry's production does not actually reach the final buyers. What is required is the tracing of flow of commodities through the economic system from mines and factories to the ultimate users. It is beyond the capability of most countries to undertake such commodity flow analysis to arrive at the value of final sales. The same result can be obtained from the expenditure side, assuming that the required data exists. Final sales and final purchases come to same thing. Since the output of any producer or industry equals the income originating in its wages, salaries profits and can be obtained on an Industry basis, each Industry's contribution to the total national income

can be determined from the income. The statistics of income, output and expenditure are substitutes for each other not only in arriving at a total national income but also arriving at its composition or distribution. In practice, a combination of three methods has often to be used. In developed countries which have firm statistical base and where there is a built-in system of generating estimates of production in different sectors by having regular Census and where the income data is fairly reliable because bulk of population is covered under income tax statistics it is possible to have a very reliable estimates of national and State incomes and present these in inter-locking system of accounts. Some less developed countries also have reasonably good data on population, agricultural and Industries production, foreign trade, government finances and prices of important commodities, but certain kinds of information like income tax and social security data are either lacking or deficient. In addition the industrial Census and Surveys are less frequent and less reliable. The price data are spotty and information from private sources so useful for filling in gaps in official statistics are of limited value. Even reports of the government enterprises in a country where these are numerous and important are either not available or produced with big time lag, making their use very limited. Given the paucity of reliable information on earnings and other income payment, less developed countries have to depend on production estimates but there is a limit to this. For wholesale and retail trade, government and other services industries, value added will have to be established by using information on trading margins, Government pat rolls, numbers, engaged times, average earnings etc. Expenditure on equipment is easy to estimate than on new construction and changes in inventories. Estimating income for construction sector is difficult even in highly developed countries. Where there is no system of issuing building permits or census of construction the situation is all the more difficult. A change in inventories is more difficult to determine and in less developed countries are content to limit their inventory changes to livestock holdings and important products. Improvements and extensions made to land are equally difficult to estimate.

Presently consumption expenditure is also difficult to obtain unless there is an efficient and regular system to conduct consumption and cost of living surveys. Their coverage is usually restricted. A good deal of handicraft production and trade is concentrated in small establishments and this presents difficulty in collecting and interpretating statistics. Small family business and petty traders are unlikely to keep careful record and to be co-operative about divulging information. The collection of meaningful price data is also difficult. Shop houses do present difficulty in separating commercial and household activities for bifurcating income between Commercial and Household activities. Large difference income between different activities of the population complicate the interpretation of national income statistics and interpretation of national income statistics from the welfare point of view. In backward countries which are deficient in regard to statistics of income, knowledge of how incomes are distributed among different socio-economic classes is bound to be sketchy and the averages are likely to be misleading. Despite this short-coming the national income estimates are still valuable because their economics are less complex and dynamic and do not require high degree of precision and detail. Even rough estimates can be highly serviceable. Owing to the importance of these estimates for development planning and incessant demand of international agencies for more and better economic intelligence many of these countries are trying to improve their estimates and the progress in this direction depends mainly on their being able to upgrade the basic statistical series, which are the building blocks out of which national income accounts are constructed.

Estimation

In India, preparation of National Income estimates was taken up by Dr. Noroji relating to years 1867-70. Dr. Rao's valuation of total income for 1931-32 is perhaps his most reliable estimate made before independence of the country. The income and inventory methods were judiciously mixed

and supplemented by ad hoc inquiries. The work however, has received due attention only after independence of the country when need for such estimates to serve as indicator of country's economic development was felt, especially when planned development started with the setting up of Central Statistical Organisation and the need for preparation of national Income estimates on regular basis became the cornerstone of the economic policy of the General Government. Simultaneously, the work of constructing estimates for different States was also started. The Central Statistical Organisation assumed the role of coordinating the estimates at the national level and providing guidelines to the States so as to achieve the objects of uniformity of concepts and inter-State comparability. Steps were also taken to undertake research in improving data content of the estimates and standardising concepts and definitions. The estimates are being prepared annually and are published in the form of white paper. In addition, Central Statistical Organisation have in recent past prepared the accounts as recommended in the revised U.N. Series of System of National Accounts. Estimates of capital Formation and Savings and Flow of funds have also been prepared at the National level. In the States, work is at present mostly confined to preparation of income tables. In January, 1973, a conference research workers of National Income was held where formation and presentation of State accounts were considered and recommended.

In the State of Jammu and Kashmir work of preparation of estimates was taken up at a very late stage in 1961. The methodology was broadly based on National Income Estimates Committee Report of Government of India. In view of paucity of data the estimates are, however, deficient in many respects which need improvement. Despite shortcomings, the estimates serve as indicators of the growth of the economy and reflect contribution of various sectors of the State income and their relative inter-dependence. The changes taking place in the economy also manifest in the estimates. Nothing has, however, been done to estimate capital Formation and Savings in the State which serve as parameters of economic growth and

help in resource mobilisation so essential under planned development.

In the State, two methods have been adopted for building up the estimates of the State income : (1) Direct method and (2) Indirect method. The direct method has been adopted for agricultural production. The same technique as evolved by Dr. V.K.R.V. Rao and the Famine Commission has been adopted by the State Government. Out of the gross quantum of agricultural output, the following deductions have been made to arrive at the net value of output. The deductions are :

1.	Seed	5.2% of the agricultural output
2.	Wastage	3 % ,, ,, ,,
3.	Operational cost of material required	2.1% ,, ,, ,,
4.	Repairs and depreciation of all implements	2.1% of the value of agricultural implements.
5.	Cost of feed of live-stock	5.14% of the agricultural output
6.	Market charges	0.452% ,, ,, ,,
7.	Miscellaneous expenses	4.50% ,, ,, ,,

Though this technique has been implemented by all the State Governments including Jammu and Kashmir but it suffers from a major drawback of incorrect reporting which more often leads to underestimation of income from this sector.

The production units which have to give information regarding actual production do not keep any accounts. Sometimes they are not even consulted by patwari. Even the current technique of crop cutting method is not a fool proof device to give a correct estimate of production. The method of selecting the fields and the method of cutting the crops and its analysis thereafter sometimes do not represent the exact behaviour of agriculture in the State.

Economic growth is measured through State income which

is an aggregate estimate of income from all the sectors of a State's economy. The estimates reveal progress of economy as also change in the pattern of economic development. The SDP and the per capita income for Jammu and Kashmir are indicated below :

TABLE 17.1

SDP and per capita income of J & K State

Year	Total net state domestic product (Rs. in crore)		Per capita income (Rs.)	
	At current prices	At constant prices of 1970-71	At current prices	At constant prices of 1970-71
1973-74	352.02	274.75	716	559
1977-78 (P)	605.56	332.12	1113	611
1978-79 (P)	681.42	361.20	1222	648
1979-80 (P)	744.19	362.10	1301	633
1980-81 (P)	877.35	394.57	1496	673
1981-82 (P)	944.91	406.61	1563	673
1982-83 (Q)	1061.49	417.61	1712	673

P—Provisional Q—Quick

Source : Economic Review of J&K 1973-84.

The net State domestic product at constant has gone up from Rs. 275 crore in 1973-74 to Rs. 417 crore in 1982-83 by 52% or 6% per annum. The per capita income at constant prices too has shown steady growth from Rs. 559 in 1973-74 to Rs. 673, viz., a growth of 20.4% or 2.27% per annum. This is against a population growth of 2.62% per annum during the same period. The growth between 1978-79 and 1979-80 has been very nominal and this was on account of difficult agricultural situation which led to fall of the net State domestic product from Rs. 169.23 crore to Rs. 160.99 crore at constant prices from the sector. During 1980-81 there was improvement in the crop production and this had good impact on the per capita income which rose to Rs. 673. In 1981-82 and 1982-83 again agriculture did not behave properly and the production of maize witnessed substantial decrease. The overall production of millets, pulses and rape and mustard also declined. There was substantial decline in forest out-turn also during 1982-83. As a result the per capita income stagnated at Rs. 673. The phenomena is due to the dominance of agriculture in the economy. Despite this stagnation during the latest years the average growth during the decade has been on higher side of the national growth. This is reflected in Table 17.2.

TABLE 17.2

Growth of the NDP and the SDP

Year	All India		J&K	
	NDP (Rs. in crore)	Per capita (Rs.)	SDP (Rs. in crore)	Per capita (Rs.)
1973-74	35967	621	274.74	559
1981-82	49887	720	406.61	673
Percentage growth during 1973-82	38.70	15.94	48.00	20.4
Average annual percentage growth	4.84	1.99	6.00	2.55

Source : Economic Review of J&K 1973-84, published by the Planning and Development Department, Government of Jammu and Kashmir.

The growth rate in SDP has been nearly 6% against less than 5% observed in the NDP. Again the growth in per capita

income has been about 3% against 2% only at national level. The growth has been quite substantial in comparison to the various states for which data are available. The State has improved its rank as compared to 1973-74. This is brought out in Table 17.3.

TABLE 17.3

Per capita income at constant prices in different states

Sl. No.	States	Per capita income (Rs.) 1973-74	Per capita income (Rs.) 1981-82	Annual growth Percentage
1.	Punjab	1107 (1)	1429 (1)	3.64
2.	Haryana	877 (2)	1074 (2)	3.21
3.	Maharashtra	799 (3)	1008 (3)	3.27
4.	Gujarat	781 (4)	950 (4)	2.70
5.	West Bengal	708 (6)	720 (5)	0.21
6.	Andhra Pradesh	623 (8)	692 (7)	1.39
7.	Himachal Pradesh	693 (7)	719 (6)	0.47
8.	Jammu & Kashmir	559(11)	673 (8)	2.55
9.	Karnataka	719 (5)	664(10)	(—)0.96
10.	Tamil Nadu	603 (9)	667 (9)	1.33
11.	Kerala	573(10)	590(11)	0.37
12.	Rajasthan	538(12)	585(12)	1.09
13.	Uttar Pradesh	439(14)	522(13)	2.36
14.	Madhya Pradesh	479(13)	501(14)	0.57

(Figures within brackets indicate rank of the State)

Source : Economic Review of J&K 1973-84, published by the Directorate of Economics and Statistics, J&K.

The performance of the economy has been encouraging and the per capita income has moved quite fast as compared to many of the above States and our rank has improved from 11 in 1973-74 to 8 in 1981-82.

A noteworthy feature of the growth of the economy is that though agriculture continues to determine the direction in which the SDP has to move, yet a slight shift is noticed from agriculture to other sectors. Agriculture including animal husbandry continues to be the largest contributor to the SDP and 42% of the product comes from this sector. However, compared to 1970-71, the share of this sector has come down by about 9% from 51 to 42. This is indicative of diversification of the economy and of development of the

TABLE 17.4

Percentage contribution to SDP from various sectors (Constant 1970-71 prices)

Year	Percentage contribution to SDP from Primary sector	Secondary sector	Tertiary sector	Total
1970-71	56.47	14.73	28.80	100.00
1973-74 (P)	55.60	14.31	30.09	100.00
1977-78 (P)	53.97	15.42	30.61	100.00
1981-82 (Pre)	48.89	19.89	31.22	100.00
1982-83 (Q)	46.44	21.46	32.10	100.00

P—Provisional

Pre—Preliminary

Q—Quick

Source : Economic Review of J&K 1973-84, published by the Directorate of Economics and Statistics, J&K.

TABLE 17.5

Growth of various sectors

Sl. No.	Sector	SDP at 1970-71 prices		
		1973-74	1982-83 (Q)	Percentage growth rate per annum
1.	Agriculture including live-stock, hunting etc.	142.34	176.32	2.65
2.	Forestry & logging	10.42	15.22	5.12
3.	Manufacturing :			
	(a) Registered Sector	4.33	8.50	10.70
	(b) Un-registered sector	12.18	16.14	3.61
4.	Construction	20.75	60.59	21.33
5.	Transport & storage	13.65	30.63	13.82
6.	Trade, hotels and restaurants	24.60	32.87	3.74
7.	Public administration	16.14	30.74	5.28
8.	Other services	30.33	46.26	5.84
	Total	274.74	417.27	5.76

Q—Quick

Source : Economic Review of J&K 1973-84, published by the Directorate of Economics and Statistics, J&K.

secondary and tertiary sectors. The contribution of primary sector which was 56.47% in 1970-71 and 55.60% in 1973-74 is now reduced to 46%. The share of the secondary sector has gone up from about 15% to 21% and that of the tertiary sector from less than 29% to over 32%. This

phenomenon is helpful to accelerate economic growth as the value added in the secondary and tertiary sectors is larger. The shift in the percentage contribution from the various sectors has been indicated in Table 17.4.

The percentage growth in the various sectors between 1973-74 and 1982-83 has been 21 for construction activity, 11 for industries in the registered sector, 5-6 for forestry and logging, public administration and other services and less than 5% in other sectors. Agriculture is conditioned by the behaviour of weather and has shown slow growth of 3% only. The growth rates in the various groups has been indicated in Table 17.5.

18

Animal and Sheep Husbandry

Livestock development and dairying programme have to be viewed as an effective instrument of social change through supplementing the income and providing employment to weaker sections of people in the rural areas. Special emphasis is laid on projects for increasing productivity of various species of livestock through genetic improvement and better health cover, development of feed and fodder, mixed farming and an efficient marketing system. Animal husbandry development is an integral part of dry farming DPAP, desert development and hilly and backward areas development programmes.

Livestock rearing is an important programme for J&K State in view of vast pastures and large forests rich in fodder resources which offer a tremendous scope for the development of animal husbandry. According to the census of 1977 the total livestock in the State was 46.58 lakhs and that of poultry 20.40 lakhs which makes a handsome contribution to State Domestic Product.

Objectives

The animal and sheep husbandry development programme envisages :

1. Improvement of genetic material of livestock including cattle, buffaloes, sheep, goat and poultry to increase supply of milk, wool, meat and eggs.
2. Disease control measures including investigations, research and manufacture of biological products for protection against disease.
3. Feed and fodder development programme.
4. Development of marketing facilities.

Plan Expenditure

Total expenditure of Rs. 26 crore has been made on this programme so far and the progress of expenditure is indicated in Table 18.1.

It will be seen that the tempo of developmental expenditure has been speeded up after the 4th Plan. The expenditure from Ist to 4th Plan has been of the order of Rs. 7 crore. The expenditure during 5th Plan alone was of the order of Rs. 6 crore. During the subsequent years the expenditure has been higher and now the annual outlay is of the order of Rs. 360 lakh during 1982-83.

Training Facilities

An important programme of the department is provision of adequate training facilities. With the setting up of our Agriculture University we would be able to provide training facilities of higher level within the State. Presently, however, we are sending our personnel out for higher studies. Roughly 350 such personnel are under training in various institutions of the country. For training of lower levels of personnel viz., for stock assistants, we have stock assistants' training schools at Srinagar and Jammu. The schools are being upgraded to provide for refresher courses to other technical staff also and are being provided with hostel accommodation.

Upgrading Facility

An important programme is the provision of expensive health cover and upgrading facilities. Four hospitals, 320 dispensaries and 580 veterinary stock centres were the likely level of achievement ending 1981-82. 15.19 lakh animals were treated

TABLE 18.1

Expenditure on animal/sheep and dairy development

Year	Amount spent on Animal/Sheep Husbandry and Dairy Development (Rs. in lakh)
Ist Plan	22.16
2nd Plan	47.51
3rd Plan	96.80
Inter Plans	110.25
4th Plan	433.86
Total	710.58
5th Plan	615.28
1978-79	288.85
1979-80	266.04
1980-81	385.67
1981-82	347.08
Total	1,897.92
Grand Total	2,608.50
1984-85 (Actual)	534.47
1985-86 (Anticipated)	500.00
1986-87 (Proposed Outlays)	554.10
Seventh Five Plan (1985-90) Approved Outlay	2500.00

for various diseases during 1979-80 against 10.86 lakhs during 1974-75. For liverfluke alone the number treated was 7.38 lakhs against 1.38 lakhs in 1974-75 and for rinderpest 6.73 lakhs (provisional) against 3.72 lakhs in 1974-75.

There is a special programme for providing veterinary facilities to the livestock maintained by Gujjars and Bakerwals. This was taken up in 1974-75 only and at present 34 livestock develovment centres are functioning to cater to the needs of this population in the districts of the Valley. Correspondingly mobile dispensaries have been opened in Bahaks to

serve the animal populations moving to the higher altitudes during summer season. The scheme was taken up in 1980-81 and 14 mobile dispensaries stand set up. The number is likely to be increased by 10 during the current year.

There are a number of ICD projects under which large number of cattle development centres function. The programme is being expanded and in addition to the existing 25 ICD centres in R.S. Pura block 15 more would be created. Similarly 25 ICD centres would be provided in the Samba Tehsil. In ICD Kulgam 5 more centres are being provided in addition to present 50 to cover the leftover areas of Pulwama. Similarly, ICDP Sopore with its 56 ICD centres cover Baramulla and Kupwara districts and 10 more centres are being added in order to cover the left-over areas of district Kupwara. The key village scheme Udhampur with its 34 ICD centres covering Udhampur and Doda districts would also get 5 additional centres. The scheme is being converted into ICD Project during the 6th Plan. A dairy farm is being set up at Naushehra. An exotic cattle feeding farm has been set up at Manasbal with the help of Australian Government with cultivable area of 200 acres. The farm costing Rs. 52 lakh is engaged in producing Jersey bulls for improvement of the cattle wealth. The distribution of breedable animals all over the State ending August, 1981 was 134 (76 bulls and 58 cows/heifers). The farm has a carrying capacity of 270 animals including 100 cows of parent stock and the present strength is 228 animals.

Other Activity

Recently frozen semen programme has been taken up in order to cover inaccessible areas to which it is not possible to carry semen in liquid form. Forty-five frozen semen centres have already been set up and the number at the end of 6th Plan would be 150. Two frozen semen banks have already been set up with Danish aid at Belicharana, Jammu, and Ranbir Bagh, Srinagar.

There are at present 400 cows/buffaloes bulls in veterinary institutions and artificial breeding stations which render breeding service both in natural and artificial ways. Natural

service covered 0.14 lakh animals in 1979-80 against 0.03 lakh only in 1974-75. Artificial insemination was likely to cover 1.70 lakhs during 1981-82 and birth recording covered 0.44 lakh in 1979-80 against 0.11 lakh in 1974-75. The cattle breeding farm Belicharana is being converted into modern buffalo farm with 500 buffaloes. The Chashmashahi farm is being shifted to Kanderhama Rakh where construction work is already going on.

There is acute shortage of fodder for our livestock and this hinders the cross breeding and improvement which is not possible without simultaneous provision of energy. 1.25 lakh hectares only is the area under pastures and grazing. The by-products of agriculture crops are hardly sufficient to meet the fodder requirement of the animals. It is, therefore, endeavoured to persuade cultivators to bring land under fodder crops. An area of 0.27 lakh hectares has come under fodder crops.

Poultry Development

An intensive broiler development project has been established at Hari Parbat with annual production target of one lakh chicks meant to provide 100 tonnes of poultry meat annually. A similar project is being set up at Jammu. A duck farm has been established at Sumbal during 1978-79. This farm is being strengthened to increase duck meat production. Important achievements under poulty development programme are shown in Table 18.2.

The research and manufacturing of veterinary biological products is presently carried out in the veterinary campus at Srinagar. A separate institute of animal health and biological products is being set up now at a cost of Rs. 70 lakh. 105 Kanals of land has been purchased for Rs. 11 lakh and the construction work is in progress. Anti-rabic laboratory, R.S. Pura, Jammu is being set up and the laboratory complex has been completed. Six clinical laboratories are functioning at Anantnag, Baramulla, Kupwara, Rajouri, Kathua and Doda. These have been playing important role in diagnosing livestock and poultry diseases. The National Rinderpest Eradication

TABLE 18.2

Achievements under poultry development programme

(Nos. in lakhs)

Poultry development at Jammu and Srinagar	1974-75	1981-82	1983-84
(a) No. of layers	0.03	0.08	0.20
(b) Eggs produced	3.20	9.11	10.07
(c) Breeding birds issued	0.21	0.90	0.99
(d) Hatching eggs sold	0.06	1.21	1.75

Programme has been in operation since 1957. The number of patients treated against rinderpest was 6.73 lakhs in 1979-80 as against 3.72 lakhs in 1974-75. The foot and mouth vaccination programme was introduced in 1975-76 and 50% subsidy is provided on vaccine to milk shed areas preferably cross-breed cattle of the weaker sections. The T.B. control, Brocellous unit was made effective since 1979-80 and has been collecting samples from the field and testing them. An epidemological unit is functioning at R.S. Pura and has been engaged in checking the foot and mouth diseases.

As a result of the various developmental programmes the livestock and poultry population has shown a steady growth during the past decade or so as indicated in Table 18.3.

The total production of milk is estimated to have gone up from 1.98 lakh litres in 1974-75 to 2.70 lakh litres in 1981-82 and that of eggs from 200 million in 1974-75 to 220 millions in 1981-82.

Sheep Husbandry

With regard to the sheep husbandry, production of fine quality wool and increase in mutton production are the two main aims of the programme. There are two sheep and goat diagnostic laboratories at Srinagar and Jammu. The labora-

TABLE 18.3

Growth of livestock and poultry population

(Nos. in lakhs)

Specie	Number of animals/birds recorded in			
	1966	1972	1977	1982
Cattle	17.92	20.57	21.38	23.25
Buffaloes	4.28	4 93	4.99	5.63
Sheep	11.52	10.72	12.16	19.08
Goats	6.05	5 69	6.92	10.03
Others	1.02	0.94	1.13	1.18
Total	40.79	42.85	46.58	58.17
Poultry	15.35	17.05	20.40	24.06

tories are conducting research in parasitic infestation. The laboratories are being expanded and strengthened so that they undertake studies on diseases of bacteriological, virological, parasitological and toxicological nature and to help in purchase of different vaccine. Polyclinic laboratories are set up in four districts.

An Angora Rabbit farm has been set up at Wussan near Pattan for rearing up of rabbits for supply of wool and fur to handicraft industry. The present livestock strength is 800 and it is proposed to be increased to 12,500 by the end of 6th Plan when the farm shall be supplying 10,000 pelts annually.

There is a scheme for expansion and consolidation of five sheep breeding farms, namely, Gobel, Kralpathri, Dachigam, Reasi and Billawar which make trials of imported breeds to produce stud-rams of higher genetic value for distribution to the field. At the end of 1980-81, the total livestock in these farms was about 7,000 and 900 breeding rams have been distributed to the centres.

A large sheep farm has been set up at Daksum and this farm was previously a centrally sponsored scheme. It has been taken up under State Plan since 1979 and has been rendering great help in increasing the wool and mutton yield of the cross-breed animals by producing and distributing of rams of muttonous and wool qualities. The livestock strength in the farm is 3,600. 360 rams were distributed during 1980-81 and the likely number distributed during 1981-82 was 372.

A special livestock programme for SFDA and MFAL is under implementation in three districts of Budgam, Doda and Udhampur and aims at helping identifying small and marginal farmers and agricultural labourers to supplement their income through a composite sheep rearing programme. The scheme was under implementation for the last 4 years and has helped to set up about 1,000 units and led to the increase of sheep population by about 16,000.

Two sheep shearing wool grading and marketing centres have been set up for modernising the techniques of shearing and grading of wool. Considerable work has been done by these centres.

A sheep breeding farm has been set up in Basohli. An area of 260 acres has been acquired for the purpose of fodder production. The livestock strength is 1,200 and would go up to 2,000 by the end of Sixth Plan.

An area of 650 acres of land has been acquired at Lam in Rajouri district also for fodder development.

A sheep breeding farm is being set up at Pulwama under the 6th Five Year Plan. The site has been finalised and the land is being acquired. The farm is likely to start with a basic livestock strength of 1,000 sheep.

A diary goat farm is being set up. An area of 60 acres of land has been acquired in Kathua district from Tawi command area project. The goats proposed to be produced in this farm would increase milk production and provide subsidiary income to the small and marginal farmers and agricultural labourers. The scheme is likely to cost Rs. 41.50 lakh would distribute 600 goats annually.

There is a wool and sheep extension scheme for extension

work. Sheep and wool extension centres are set up with the twin purpose of providing breeding facilities and health cover to the local flocks. By the end of 1981-82, the number of centres was expected to be 617 which is envisaged to be raised to 700 by the end of 6th Plan. As another measures of health programme, the local flocks are provided with medicines for dipping their stocks against various diseases. For this purpose dipping tanks have been set up in various areas. A noteworthy thing is that tarpolin tanks have been devised which can be moved along with the livestock population.

The Department are also looking to training of technical personnel. Two stock assistants training schools function, one at Jammu and the other at Srinagar. The personnel are also sent outside the State to receive training in various branches of animal science.

As a result of the various steps there has been considerable improvement by way of upgradation of the livestock. The total sheep population has gone up from 10.72 lakhs in 1972 to 12.16 lakhs in 1977 and that goats from 5.69 lakhs to 6.92 lakhs. The total production of wool is estimated to have gone up from 14.75 lakh Kgs in 1974-75 to 19.30 lakh Kgs in 1981-82 and of meat from 64.00 lakh Kgs to 79.00 lakh Kgs in 1981-82.

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Institutions Promoting Industrial Activities

The Government of Jammu and Kashmir is very keen to develop the industrial activities and has, therefore, encouraged a number of organisations to provide infrastructural support and the necessary cooperation and guidance. Some of these institutions are described as under :

Small Industries Service Institute

The State of Jammu and Kashmir is served by Small Industries Service Institute, Srinagar and by a Branch Institute, Jammu. A brief description of the main activities undertaken by the Institute during the year under review are as under :

Consultancy Service

The Institute provided technical and other consultancy service to prospective as well as existing entrepreneurs.

Technical Assistance

The technical facilities available at the Workshop attached to SISI are as under :

SISI Srinagar — General Engineering, Carpentry and Leather.

Br. SISI Jammu — General Engineering and chemical laboratories.

Apart from technical consultancy services rendered to prospective entrepreneurs the Institute undertook jobs and provided workshop facilities to small scale units. Technical schemes/project reports are prepared and supplied to entrepreneurs. Many of the entrepreneurs were provided technical guidance for the manufacture of hardboard, boot polish, carbon paper, electroplating, aluminium utensils, chain lock fensive, plastic glow signs etc. and a demonstration was arranged for the manufacture of suede leather. The items like dies and tools, a substitute for imported ones, fuel injection part of a heavy machine and compound die for workers were designed and fabricated at the workshop attached to SISI, Jammu.

With a view to identifying industrial potential based on locally available resources and demand, Area Surveys in the districts of Anantnag, Rajouri, Poonch, Udhampur, Jammu, Kathua and Srinagar were conducted. To review the impact of reservation of industries in small scale sector studies in respect of 77 items were undertaken by the Institute; six studies in ACC/ACSR conductors, lone drawing, re-rolling of M.S. Section, Tin containers, Domestic utensils of stainless steel, and bright bars were conducted. Feasibility studies for setting up of industrial estates at Leh and Kargil were also undertaken during the year under review. The production data in respect of 14 sample units were being collected regularly.

Besides, entrepreneurs seeking financial assistance from banks were assisted and techno-economic reports were prepared and sent to banks and financial institutions.

In order to motivate the rural artisans to establish small scale as well as rural industries of their own in their respective areas, a three-month Training Programme was organised at Kathua in which rural artisans including scheduled castes and women entrepreneurs were trained in various trades viz., blacksmithy, carpentry, pottery, weaving, willow works, mechanics etc. These artisans were selected from Anantnag,

Udhampur, Jammu and Kathua districts. Technical courses in machinist and fitter trades were also organised at Institute's workshop wherein persons working already in small scale units were trained to improve their skills.

With a view to providing marketing assistance to small scale units close liaison was maintained by the Institute with the units under sub-contracting, Exchange programme. A few units in public sector and one in private sector were contracted in getting orders/contracts. Trade enquiries from five units were received and processed.

As many as seven units were provided assistance and information in the field of exports; six export worthy units were referred to Trade Development Authority and one to export house.

A two-day open house discussion on "Bakery products" was held at Srinagar in which 50 entrepreneurs took active participation. An Industrial Exhibition was organised by the Director of Industries and Commerce, Jammu and Kashmir State.

A quarterly R & D News Bulletin containing articles on transfer of technology, designs, new processes etc. was also published. Brief notes on the subjects such as Rural Development, participation by Business House, Development of women entrepreneurs and Guidelines for disbursement of loans to SISI Units in District Industries Centres were prepared. The institute assisted Jammu and Kashmir Productivity Council in organising training programmes in collaboration with N.P.C. in which more persons were trained. The programme covered the subjects like cost reduction technique, project management, financial management, workers productivity etc.

Small Industries Development Corporation

Jammu and Kashmir Small Scale Industries Development Corporation Ltd. (SICOP), was started during the year 1975 with the initial Government paid up capital of Rs. 46.85 lakh which has increased to Rs. 1.56 crore till 1985 with the main object to aid, counsel, assist, finance, promote and protect the

interests of Small Scale Industrial Units in the State of Jammu and Kashmir.

(1) Undertakes procurement and distribution of various raw materials whether imported or indigenous, allocated by the Government of India to the State of Jammu and Kashmir.

(2) Functions as a stockist in the State for Iron and steel, non-ferrous metals.

Presently the Company is providing following facilities to the SSI Units for development of small scale industrial units in the State :

(1) Infrastructural facilities like Industrial Estates and providing of developed plots to the SSI Units.

(2) Procurement/distribution of imported/indigenous raw material of different kinds to the SSI Units.

(3) Providing marketing cover and financial assistance for marketing of end products of SSI Units.

(4) Providing testing facilities to SSI Units for maintaining quality control at Jammu and Srinagar.

During these years the Company has expanded its activities manifold and its turnover has accordingly increased from Rs. 88.96 lakh during 1976-77 to Rs. 1117.91 lakh during the year 1984-85.

The Corporation is also undertaking marketing of end products of the SSI Units and during the year 1985-86 the end products to the tune of Rs. 680 lakh are expected to be marketed against actual marketing of Rs. 540.18 lakh conducted during 1984-85.

The Corporation during 1984-85 procured the raw materials worth Rs. 1135.01 lakh from indigenous as well as imported sources; during the current year the Corporation will be procuring raw materials worth Rs. 1477 lakh and the Corporation is expected to have total turn over of Rs. 1574.77 lakh against actual turn over of Rs. 1317.91 lakh.

The Corporation is expected to earn gross profit of Rs. 47.15 lakh against the actual gross profit of Rs. 38.41 lakh earned during the year 1984-35.

Development of Industrial Estates

At present SICOP is maintaining and developing five Industrial Estates in the State comprising of about 2030 kanals.

Industrial Estates	Total area acquired	No. of plots
Jammu Division		
1. I/E, Gangiyal	998 Kanals	311
2. I/E, Birpur	338 Kanals	129
Kashmir Division		
1. I/E, Zainakote	525 Kanals	228
2. I/E, Zakura	128 Kanals	51
3. I/E, Sports Goods Complex, Bijbehara	206.7 Kanals	51

The Corporation has almost spent the total paid up capital in the development of these Industrial Estates.

Apart from this the Corporation is making every effort to provide marketing cover to the maximum possible extent to end products of SSI Units. But the Corporation has come across with many constraints in its endeavour to achieve the set goal. Inspite of the fact that the Government from time to time has issued many circulars/orders to provide price preference and other incentives to encourage the local SSI Products in Government purchases, these orders are not being implemented by the Government departments in its letter and spirit in general and autonomous bodies/Government undertakings in particular.

In order to encourage the small scale industrial units the effective implementation of these orders would be most essential. Further to avoid sub-standard supplies, SICOP could be made the sole supplier of SSI Products to the Government departments and in that case the lifting of materials from SICOP stores would become compulsory instead of making purchases directly from the factory premises of the SSI Units.

As stated above SICOP has to function as stockists in the State for different kinds of materials in order to make available the materials to the SSI Units. But it is not possible unless SICOP is provided with some interest-free loan to maintain its buffer stocks. As per the present arrangement SICOP avails finances from the financial institutes at the normal bank rate with the result it is not possible to held its stores for longer period.

With the present arrangement the SSI Units sometimes had to face great hardship, as the materials are mostly allocated by the Government of India, quarterwise and unless the unit holder has the capacity to purchase in bulk and store the materials for the rest of the period as they may not get the materials till the next quarter.

SICOP is the only Corporation in India which has covered all districts in the State by establishing sub-depots. Even areas like Leh and Kargil have been covered and the rates of various raw materials are kept uniform in all the districts.

J & K Industrial and Technical Consultancy Organisation Ltd. (ITCO)

J&K Industrial and Technical Consultancy Organisation Limited, was set up in April, 1977, as a subsidiary of Industrial Development Bank of India (IDBI). It is one of the series of Consultancy Organisations sponsored by the IDBI for promoting industrialisation in backward areas of the country.

Jammu and Kashmir ITCO was promoted by the IDBI jointly with other all India financial institutions, banks and State level financial-cum-development institutions. The members of the J&K ITCO are :

Industrial Development Bank of India
Industrial Finance Corporation of India
Industrial Credit and Investment Corporation of India
J&K Small Scale Industries Corporation Ltd.
J&K State Industrial Development Corporation Ltd.
The Jammu and Kashmir Bank Ltd.
Bank of India
Bank of Baroda
State Bank of India
Union Bank of India
Punjab National Bank
Central Bank of India.

The prime objective of J&K ITCO is to provide a package of consultancy services to tiny, small and medium scale units, both existing and prospective, and also to render assistance to various state level institutions/banks etc., by undertaking promotional activities such as industrial potential surveys, market studies, entrepreneurial development programmes etc., with a view to achieving rapid and sustained industrialisation.

J&K ITCO is managed by a Board of Directors. The Directors are highly experienced professionals and specialists in their respective fields. The Chairman as well as the Managing Director are appointed by the IDBI. He is assisted by different consultants.

Following are the important industrial services provided by J&K ITCO :

Entrepreneurial Guidance
Entrepreneurial Development Programme
Project Identification
Preparation of Feasibility and Project Reports
Drawing Up Expansion and Diversification Programmes
Project Monitoring

Technical, Financial Marketing and Managerial Consultancy

Nursing Programmes for sick units

Follow up with Financial Institutions and Banks

Appraisal of Project Reports and undertaking Inspections for Financial Institutions and Banks

Industrial, Marketing and Resource Potential Surveys

Collection and Dissemination of Techno-Economic Data.

State Industrial Development Corporation (SIDCO)

Objectives, achievements and prospects

The Jammu and Kashmir State Industrial Development Corporation Limited was floated in 1969 at a special agency fully owned by the State Government for promotion and development of industry in the State.

Initially the company was incorporated with an authorised capital of Rs.1.50 crore, which was subsequently enhanced to Rs. 5.00 crore and is under revision to Rs. 20.00 crore.

With a view of achieving the objective of industrialisation of the State the Corporation have identifed the following activities :

— Identification of technically feasibly and economically viable industrial projects for establishment in the State of Jammu and Kashmir;

— Identification of suitable entrepreneurs for setting up of the industrial projects;

— Direct promotion of units which are of crucial importance of the economic development of the State either directly or in participation with private sector entrepreneurs, either in assisted sector or in joint sector;

— Development of industrial areas/estates for providing developed industrial land sites and built-up sheds with built in necessary infrastructural facilities for setting up of industrial projects;

— Acting as a clearing house for obtaining clearances, permissions, letters of intent, industrial licences, identification of collaborations both from within and outside the country, assistance in transfer of technology etc.;

— Providing of term loans on concessional rates of interest to any of the following :

(a) Private or Public Ltd. Companies,
(b) Joint Sector Companies;

— Providing of seed capital assistance;

— Providing of marketing cover for electronic and precision engineering industry;

— Acting as stock-holders to ensure sustained supply of scarce and imported raw materials.

The activity-wise achievements are briefly discussed hereunder :

Identification of viable projects and suitable Entrepreneurs for setting up of the Same

Right from the inception the Corporation has attached importance to this activity and as a result identified number of resource based, low weight, low volume and high value products industrial projects for which the possibility of establishment in the State exist. The Corporation have got techno-economic feasibility profiles prepared for these projects. Many of these profiles have been developed into full-fledged feasibility reports and made available to prospective entrepreneurs for use for setting up of these industrial projects.

In fact even at present there are more than 150 project profiles on different product lines available and these are being advertised through different chambers of Industries and Commerce in different States and also National Media for identification of suitable entrepreneurs for setting up of these projects.

Apart from identification of projects and entrepreneurs, for

alleviating the level of entrepreneurship within the State, the Corporation has been conducting number of Entrepreneurship Development Programmes in collaboration with National Agencies like : Indian Investment Centre, Banks and Financial Institutions to train the entrepreneurs from within the State for setting up of industrial projects.

Direct Promotion of Units

Besides identifying feasible projects and suitable entrepreneurs, the Corporation also undertakes promotion of some projects which are of crucial importance for economic development of the State and/or where private investment is not forthcoming easily on its own.

Development Banking

Apart from identifying technically feasible and economically viable projects and providing guidance to entrepreneurs for setting up of industrial projects, the Corporation also provides finance in any of the following forms :

(i) long term loans;
(ii) equity assistance;
(iii) capital participation;
(iv) under-writing and guarantee;
(v) seed capital assistance to any of the following :

(a) Private or Public Limited Companies;
(b) Joint Sector Companies.

The Corporation have so far sanctioned term loan assistance of Rs. 25 crore in favour of 50 industrial units which are under implementation in different industrial areas of the State. Most of these units have been commissioned and others are at advanced stages of completion. By providing term loan of Rs. 25 crore, the Corporation succeeded in mobilising an investment to the tune of Rs. 40 crore in the State and when

these projects are completed the turn-over is estimated at Rs. 70 crore and the potential for employment is likely to exceed 10,000 persons. The financial assistance is being provided at highly concessional rate of interest and very soft terms. Besides term loans the Corporation provides seed capital assistance upto Rs. 15 lakh per project in favour of such promoters who have viable projects, but do not have sufficient funds to meet the promoters contribution requirements. These loans have been provided mostly to private and public limited companies. These loans are being provided under refinance scheme of Industrial Development Bank of India. Apart from providing term loans the Corporation provides equity assistance in favour of deserving projects/promoters to help them to tie up the sources of financing the cost of project.

The Corporation have recently started providing finance by participation by setting up of projects in the joint sector. Since the requirement of money for meeting the equity requirement for setting up of projects in joint sector is to be provided by the Corporation from its own sources, the Corporation is feeling handicapped because of lower availability of money from State allocations for such activity. Although the future for lending through capital participation is very bright, but achievement is possible only if increased amount of allocations for such activities are made available by the State Government.

Providing of developed land sites and built-up sheds

The Corporation have identified areas in different districts of the State and have developed the same by providing all the basic necessary infrastructure like : levelling, link roads, water distribution system, power distribution system, drainage, street lighting, communication facilities, first aid facilities, shop-cum-residential-cum-office facilities etc. In fact the Corporation have already developed a prestigious industrial area at Bari Brahmana in district Jammu. The Corporation have covered an area of 2400 kanals of land in this complex. Most of this area has been already allotted and this complex is presently humming up with industrial activity. More than 20

units involving an investment of about Rs. 50 crore have already gone into production in this area and many more are nearing completion. Keeping in view the increasing demand for land in this complex, SIDCO have identified and acquired more land adjacent to this complex for development. Apart from Bari Brahmana, SIDCO have developed three industrial complexes at Rangreth, Khunmoh, and Doabgah. The industrial complex at Rangreth has been exclusively developed for setting up of electronics and precision engineering industry. Projects involving an investment of about Rs. 7 crore have already been completed and projects estimated to cost another Rs. 50 crore are under implementation in this-area. Besides basic infrastructural facilities the Corporation have set up a comprehensive Testing and Development Centre with the assistance of Government of India in this area. The purpose of this centre is to act as a nucleus for promotion and development of electronics and precision engineering industry in this area. A Northern Regional Level Centre for Electronic Design and Technology, set up by Government of India, is also nearing completion in this area.

At Khunmoh Corporation have developed an area of 515 Kanals of land, most of which has already been allotted to different industrial concerns. Out of 14 industrial projects, under implementation, 6 have already been completed. When all these units are completed the investment in the area is likely to go to Rs. 20 crore. In view of more demand, SIDCO is in the process of acquiring of more land adjacent to this area for development. Recently SIDCO have taken in hand the development of a very big and prestigious industrial area at Lassipora in District Pulwama. SIDCO have plans to develop an area of 5000 kanals of land in this complex. In fact two Industrial units are already under implementation in this area. These are Sheet Glass Project, estimated to cost Rs. 7.50 crore, and Bottling plant estimated to cost Rs. 2 crore. SIDCO is on a look out for more areas in other districts to ensure balanced distribution and growth of industry in the State of Jammu and Kashmir.

Other Promotional Activities

Apart from the activities highlighted above, the Corporation acts as a clearing house for obtaining various clearances, permissions, letters of intent, industrial licences from different quarters for prospective entrepreneurs for setting up of industrial projects in the State. The Corporation have so far acquired 15 Letters of Intent, and Industrial Licences and 13 Industrial Registrations. These are made available to prospective entrepreneurs for setting up of industrial projects either on their own or in participation with the Corporation.

Projects Under Implementation

About 25 projects are under implementation. The likely investment in these projects is going to be Rs. 80 crore. They will generate employment for more than 3000 persons. Some of the important projects which are under implementation, are :

	Investment
(1) Singer Sewing Machines (Zig Zag Sewing machines)	Rs. 2.5 crore
(2) Bhilwara Textiles (cotton and synthetic yarn and ready made garments)	Rs. 12 crore
(3) Claro India Limited (Watches)	Rs. 38 crore
(4) Oak India Limited (Duncans) (Electronic Laminations and PCBs)	Rs. 11 crore
(5) Anantnag Sheet Glass (Tinted glass)	Rs. 7.5 crore
(6) Haryana Malleable and Alloy Castings (Castings)	Rs. 1.5 crore
(7) Himgiri Fabrics (Pile woven fabrics)	Rs. 2 crore

		Investment
(8)	Jehlum Structurals (Mechanised Bricks)	Rs. 1 crore
(9)	Khyber Industries (Cement)	Rs. 2 crore
(10)	Saraf Industries (Cement)	Rs. 1.7 crore

Straw Products (Singhanias) have obtained a Letter of Intent for manufacture of polyester yarn. The investment in the project is going to be around Rs. 70 crore.

Modi Rubber have decided to set up a colour TV project in Kashmir Province with an investment of Rs. 120 crore. Shri Vinay Modi has already left abroad to identify the collaborators for the project.

A group of Non-Resident Indians are setting up a Video Tape Project in Kashmir Province with an investment of Rs. 8 crore. They have already identified a collaborator for the project.

Problems faced by the Corporation and Entrepreneurs

Although one of the important inputs for the industry electric power is available the State at a cheapest tariff of 20 N.P. per unit, but due to frequent interruptions and fluctuations in voltage both the existing as well as newly identified entrepreneurs are faced with difficult situation. The Corporation tries to help the entrepreneurs to overcome this difficulty by liberally financing captive power generating sets, but due to high cost of generation of captive sets the interrupted availability of power and fluctuating voltage continues to be a major impediment in the desired growth of industry in the State.

Apart from providing term loans, as already stated above, the Corporation initially participates with entrepreneurs for setting up of industrial projects. However, despite good response from entrepreneurs both from within and outside the State we have not been able to achieve the desired results in this activity due to limited availability of funds and allocations from the State Government for such activities. It may be mentioned here that such activity serve as a self-incentive for motivating more and more people and to locate their industrial

projects in the State, but due to lower availability of funds the desired results are not achieved.

Khadi & Village Industries Board

Khadi is an age old industry in our country. It is a labour intensive industry which keeps the artisans busy round the year. It is an important means to create employment opportunities in the far-flung and backward areas. It has the advantage of being less capital intensive and the equipment needed is simple as also cheap. Raw material needed for the industry which is based on Animal Husbandry, Forest and Agricultural Products is locally available and does not pose much of a problem.

The Khadi and Village Industry has great scope for expansion and reorganisation. To achieve this end the Khadi and Village Industries Board was set up. The Board has organised the units in a scientific manner and provides finance to them. Shri Gandhi Ashram, the Khadi and Village Industries Commission, the Kashmir Dastkar Anjuman, sponsored and aided by the Khadi and Village Industries Board and the Khadi Gham Ashram. The Khadi and Village Industries Board which was set up in 1961-62, has played an important role in giving a boost to the Khadi and Village Industries. The Board concentrates upon organisation and financing of the Khadi and Village Industries/Artisans societies and individuals. The finance is provided on easy terms and a low rate of interest at 4%. The following industries are covered :

1. Village Oil Industry
2. Leather Industry
3. Potter Industry
4. B and C Industry
5. Lime Industry
6. Soap Industry
7. Processing of Cereal and Pulse Products
8. Willow Wicker.

9. Fibres
10. Bee Keeping
11. Gur and Khandsari
12. Papier Machie
13. Fruit Preservation;, and
14. Match Industry.

I. Incentives available for Medium, Large and S.S.I. Units

Allotment of Government land in Industrial Estates and outside Industrial Estates and benefits in other cases shall be regulated as follows :

(i) Lease period shall be 90 years, with a provision in the lease agreement for revision of rent after every 10 years. The revision of rent shall follow norms as may be fixed by the Government subject to upper limit of 20%.

(ii) Premium and rent up to two Kanals for tiny sector including Handicrafts. Handloom and Village and Cottage Industry Sector would be 50% of the corresponding rates applicable to SSI Units.

(iii) In Government owned Industrial Estates, the rental and premium for SSI Sector would be Rs. 150 per kanal per annum, and Rs. 1,500 per kanal respectively. Allotment for units requiring more than 4 kanals shall be made by the Government.

(iv) Premium and rental for large and medium units shall be Rs. 3,000 per kanal and Rs. 300 per kanal per annum respectively.

(v) All the above mentioned rates would be applicable at 50% in case of areas which are declared as specially backward areas or bad pockets.

(vi) For units in interior and far-flung areas outside Industrial Estates, the cost of purchase of land would be subsidised by the Government to a maximum of Rs. 25,000 or to maximum of 2 kanals of land in case of tiny sector/Handicrafts/Handloom,Cottage Unit and at 1/5th of the cost of land for other SSI unit inclusive of capital subsidy, as may be available. If amount of such capital subsidy is less than Rs. 25,000.

(vii) No premium would be chargeable from the Technocrats (Engineering Graduates).

(viii) Notwithstanding the above mentioned rates, the premium and rent at the rate of Rs. 1,000 per kanal and Rs. 600 per kanal per annum respectively will be charged for all Industrial Estates under the management of SICOP.

II. Sheds

(i) SICOP/SIDCO/Directorate of Industries and Commerce would on their own construct sheds, if need be, and rent it out to the entrepreneurs on suitable terms and conditions.

(ii) The rate of interest in respect of loan to Small Entrepreneurs advanced by the State Financial Corporation or by any other financing institution, for the construction of sheds would be subsidised as under :

(a) Within and outside the Industrial Areas/Estates other than specially backward areas and bad pockets.	3½% subject to all ceilings of Rs. 10,000 per entrepreneur per year.
(b) Outside the Industrial Area/Estates but in specially backward areas and bad pockets.	5% subject to the ceiling of Rs. 10,000 per entrepreneur per year.

(c) Notwithstanding the above mentioned rates, a Technocrat (Engineering Graduate) would be entitled to 5% subsidy on loans, regardless of location of the unit, subject to a ceiling of Rs. 10,000 per annum.

(d) The subsidy shall be directly passed on to the recognised financing institution, if the entrepreneur

has not defaulted in payment of instalments and interest. The amount of subsidy shall in no case exceed the amount which would have been payable, within the prescribed limits, if there was no default.

III. Feasibility Reports

(i) 100% subsidy for tiny units, 90% subsidy to SSI units and 50% subsidy to medium and large scale units shall be given towards the cost of preparation of project reports.

(ii) For updating/revision of project feasibility reports, the cost would be subsidised at the above mentioned rates to a limit of Rs. 15,000 for large/medium and SSI Units respectively or the amount actually incurred, whichever is less.

(iii) J&K State Industrial Development Corporation Limited; Directorate of Industries and Commerce and J&K Small Scale Industries Development Corporation Limited, shall be recognised agencies for providing project feasibility reports and these reports shall be apprised by these said agencies.

IV. Power Tariff/Diesel Generating Sets

(i) Subsidy to be allowed on purchase of Diesel Generating Sets @ 20% for Large/Medium and 33.33% for SSI Units on cost of Generating Sets subject to the condition that the amount of subsidy shall not exceed Rs. 3 lakh.

(ii) Concessional tariff as may be decided from time to time, shall be applicable for the Industrial Units in Large/Medium and SSI Sector.

(iii) Electricity duty will be paid as the same is chargeable by the Central Government. The State duty if leviable, will not be charged from the Industry on private generation.

(iv) Government will allow setting up of Captive Thermal or Hydel Generating Sets by individual and groups of Industries.

(v) The condition for availability of subsidy on Diesel Generating Sets are hereby given as follows :

(a) For entitlement of this subsidy the loan shall have to be raised from the financial institutions meaning thereby that the entrepreneur purchasing Generating Sets on their own will not be entitled to the subsidy.

(b) The subsidy shall be available to the Industrial units depending upon the overall position of electricity supply and the need of a particular industrial unit. Generally it would be available for such industrial units as involve continuous production process whether round the clock or for batch processing, where any interruption in power supply would result in substantial production losses.

(c) The amount of subsidy shall not be paid directly to the entrepreneurs but shall be credited to the financial institutions towards adjustment of the loans sanctioned in favour of the entrepreneurs for the purchase of Generators.

(d) The Generating Sets shall not be shifted from the State to another until a period of ten years have elapsed from the date of its installation. In case any such transfer is requested by the entrepreneur on some valid grounds before the expiry of the stipulated period of ten years from the date of its installation, the unit holder will have to refund the total capital subsidy granted to him together with interest thereon at bank rates operative from time to time.

(e) The Generating Sets should be solely deployed for industrial purposes relevant to the approved manufacturing line of the industrial unit concerned.

(f) The subsidy shall be payable through the Directorate of Industries and Commerce. In the case of Large/Medium Sectors, Industrial Units and Electronics and Precision Engineering Units, subsidy shall be paid through the Directorate of Industries and Commerce only on the recommendation of Managing Director, J&K State Industrial Development Corporation Ltd. Similarly, in the case of Small Scale Units located in Industrial Estates/Areas being managed by J&K Small Scale Industries Development Corporation Ltd., subsidy shall be paid on the recommendation of Managing Director, J&K Small Scale Industries Development Corporation Limited.

V. Training of Entrepreneurs in SSI Sector

(i) Period of training shall be covered up to 18 months and shall mean and include periods spent in actual association with recognised organisations for obtaining technical know-how.

(ii) Stipend within the State shall be Rs. 400, Rs. 250 and Rs. 150 per month for Engineering Graduates, other Graduates and under Graduates respectively.

(iii) Stipend outside the State shall be Rs. 700, Rs. 500 and Rs. 300 per month respectively.

(iv) Stipend would not be released except after signing a personal bond by the entrepreneurs and two sureties guaranteeing the refund of the amount of stipend in case entrepreneur fails to set up his Industrial Unit.

VI. Price Preference

(i) Price preference up to 12% for all registered SSI Units shall continue up to end of 1992.

(ii) Testing facilities shall be set up by SIDCO/SICOP/ Directorate of Industries and Commerce for improving and maintaining quality standards.

(iii) The following procedure is prescribed for strict follow up by all Government Departments and other organisations :

(a) All the Purchase Committees at various levels in different Government Departments as well as Public Sector Undertakings shall invariably have a representative of appropriate level to be nominated by Industries and Commerce Department.

(b) In all cases where local SSI Unit is also one of the tenderers, the decision of the Purchase Committee if taken against the local SSI Unit/Units shall not be considered to be final unless opinion of the representative from the Industries and Commerce Department is recorded.

(c) If the quality of the products from the local SSI Units is not doubtful or if it carries the relevant quality mark e.g. ISI, FPO etc. and if the rates quoted by the local SSI Unit compared on the basis of landed cost received in the stores of the Department are within 12% of the lowest offer worked out on the basis of landed cost, then it would be obligatory on the part of the Purchase Committee to place the order on the said SSI Unit unless the rates quoted by the SSI Units are reduced by mutual acceptance.

(d) All the Purhasing Departments shall given clear-cut specifications and quote relevant standards in their tender notices. They shall not quote for 'Model' or 'Make' from any Company, Factory or manufacture in their tender notices.

(e) No tender from a local SSI Unit shall be summarily rejected merely on the ground that it has over exceeded the lowest offer by more than 12% on the basis of landed cost worked out in the stores of the Department. In such cases, the Purchase Committee shall be bound to give an opportunity to the tendering unit to bring its offer down to a

level where the difference can be reduced to 12% or below.

(f) If there is any SSI Unit which is on rate contract with DGS & D or NSIC then it will not be necessary for the Purchase Committee/Departments to invite any tenders for such items and the Department shall make purchases directly from such units on the basis of their approved rate contract.

(g) It would be lawful for any SSI Unit to quote through SICOP or to seek a supply order through SICOP or to request/authorise SICOP to present its case before the Department and in such cases SICOP shall be treated in the same way as if it was SSI Unit.

(h) It will not be necessary for any purchasing department to conduct or to force the concerned SSI Unit to conduct additional quality test for them if the unit is registered with ISI to supply their products with ISI mark.

(i) If the Department supplies raw-material to SSI Unit for conversion only then the conversion rates may be worked out after considering the price preference available to the SSI Unit as if the unit was to supply the finished goods to the Department rather than taking only the conversion charges.

(j) For any item where the market prices for the goods manufactured by mills are controlled by statutory orders which are not applicable to SSI Units, the price preference may be negotiated on the basis of such statutory rates.

(iv) For any deviation from the procedure prescribed above, going against the interest of the local SSI Units, concurrence of Industries and Commerce Department shall be essential.

VII. Earnest Money/Security Deposits

(i) SSI Units to pay only 50% of the amount of Earnest Money/Security Deposits prescribed in their tender notices.

(ii) Tender documents to be supplied to SSI Units at a cost which would not exceed Rs. 10 in each case, if the prescribed cost is more than Rs. 10.

(iii) SICOP shall be treated at par with SSI Units for purpose of tendering before Government Departments.

VIII. Insurance of Factory Sheds

Subsidy on premium amount shall be 90% for all sheds constructed by the Government, and allotted to the entrepreneurs.

IX. Stamp Duty

Mortgage deeds including DIC Loans would be exempted from payment of Stamp Duties up to Rs. 25,000.

X. Sale Tax on Machinery

(i) CST shall be reimbursed to SSI Units on import of machinery purchased within 5 years from the date of registration.

(ii) Exemption from payment of GST on purchase of local machinery for 5 years from the date of registration shall be available to SSI Units.

XI. Building Material

Priority will be given for supply of Cement and Steel etc. for construction of factory sheds by all Medium/Large and SSI Units.

XII/XIII. GST/CST/Additional Toll Tax on SSI Units and Medium/Large Units

(i) No GST shall be charged on any raw material purchased by any industrial unit except on items brought on a negative list.

(ii) CST charged on raw materials brought from outside the State shall be refunded to SSI Units, for a period of 5 years from the date of production.

(iii) Sale Tax loan without interest shall be given to SSI Units equivalent to the amount of GST/CST collected on finished goods, for a period of 10 years after commencement of commercial production each loan instalment shall be re-payable in 10 years period including 3 years of moratorium. A negative list will be formulated for the purpose. Penal rate of interest may be charged in case of default in repayment of this loan.

(iv) An equivalent amount of loan would be granted interest free to medium and large units for a period of 10 years against GST/CST paid in the State, each instalment of loan shall be recoverable in seven years after a moratorium of three years; the total amount of tax-loan at any point of time not to exceed 33% of capital investment of Rs. 25 lakh whichever is less. Penal rate of interest may be prescribed for delay in repayment of loan.

(v) For SSI Units, there should be no toll tax on raw materials purchased from outside the State or on goods manufactured out of such raw-materials, except on items brought on negative list. For Medium/Large Units the exemption to continue in its present form.

(vi) Such of the SSI Units as could not avail of the exemption from payment of GST from the date of their production because of delay in issue of SRO pursuant to Government Order No. 391-Ind of 1972 dated 21-6-1972 may be given the benefit of full 10 years period counted from the year of actual availment of this benefit.

The loan will be governed as under :

(a) Loan shall be utilised exclusively for the purpose of paying the existing liability incurred in setting up of a new unit in a backward pocket of the State. Interest at bank lending rate shall be charged for the period of default in refunding the amount of loan on due date.

(b) The loan shall be paid by the Directorate of Industries and Commerce within a period of three months after expiry of the accounting year in respect of which the tax has been paid and after obtaining the certificate from the Sales Tax Department about the deposit of the Sales Tax. The certificate will be issued by the Sales Tax Department within two months from the date of deposit of the tax.

XIV. Quality Control

(i) 50% subsidy on purchase of testing equipment (inclusive of normal Capital Subsidy) shall be allowed on purchase of all testing equipment for maintaining quality of the product by SSI Units.

(ii) Registration fee and annual fee for ISI Mark etc. shall be subsidised at 100% for first three years.

XV. Capital Outright Subsidy

(i) Subsidy shall be available at the uniform rate of 15% in all the Districts including District covered under the Central Outright Capital Subsidy Scheme, subject to a maximum of Rs. 15 lakh per unit.

(ii) Specially backward areas/bad pockets shall be given subsidy at an increased rate of 25% subject to a maximum of Rs. 15 lakh per unit.

XVI. Transport Subsidy

50% subsidy on Transport between Jammu Rail-Head and location of the factory shall be available as per Central Government Scheme, applicable to the State.

XVII. Revival of Sick Units

(i) The Central Government Scheme shall be adopted and continue as may be prescribed by the Central Government from time to time.

(ii) Interest subsidy at 5% on the additional loan to be raised, shall be given for revival of sick units on the recommendation of the State Level Committee on Sick Units.

(iii) Additional margin money, free of interest, not exceeding 30% of the additional capital required to be raised shall be given to sick units on the recommendation of the State Level Committee on Sick Units, repayable in 5 equal yearly instalments after a moratorium of five years.

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Handicrafts : Hndaloom

The State has industrially lagged behind as compared to the other more advantageously situated States. This has been due to inadequacy of infrastructural facilities such as power, network of means of communications raw material etc. According to annual survey of industries the total number of census and non-census registered factories engaged in manufacturing and processing was 336 in 1980-81 as against 272 in 1974-75 of which 293 submitted their returns. The factories had a total asset of Rs. 127 crore with Rs. 97 crore in the fixed capital and Rs. 30 crore in the working capital. The factories employed over half a lakh persons as workers and employees to whom Rs. 13.57 crore was paid as wages and salaries. The capital strength has gone up by about four-fifth employment about three times and wages and salaries by more than two times during the period. The input and output at Rs. 82 crore and Rs. 107 crore respectively have more than tripled.

The total employment in the industrial sector is roughly estimated 1.46 lakh workers with 0.96 lakh in the household sector and 0.50 lakh in the non-household sector. There are not many large and medium scale industries. Most of these units viz. 31 are in the public sector and account for an employment of over 6,000 persons. Out of these units eight are engaged in textiles, two in joinery, one in sports goods, one in santonian and one in leather. The total produc-

tion of these units during 1981-82 was of the order of Rs. 1439 lakh against less than half of this level in 1973-74. The value of production for the units run by J&K Industries Limited alone was Rs. 1242 lakh ending 1982-83 and Rs. 1223 lakh during 1983-84 again more than double the base year.

Bulk of industrial activity in the small scale sector and nearly 13000 units with employment over 62,000 stood registered under the District Industries Centre programme ending 1982-83. The number is likely to go into the neighbourhood of 15000 with employment of over 72,000 ending 1983-84. The number has gone up nearly seven times since 1973-74 when 2203 units only stood registered and more than half of this increase is accounted for after 1980-81 only. The average unit provides employment to about 5 persons. The Khadi and Village Industries sector is another important part of our industry and engages about 0.19 lakh workers in the registered units alone. They play a valuable role in providing part time as also full time job in the rural areas especially in the off season.

Handicrafts, the traditional industry of the valley has witnessed great revival during the post fourth plan period. It is estimated to engage 1.65 lakh persons (likely 1.74 lakhs ending 1983-84), some whole time and other part time. Nearly 0.82 lakh (ending 1982-83) workers have been given basic skills under a massive programme and the working force engaged in this industry has moved up considerably from 0.80 lakh in 1974-75 to 1.74 lakhs ending 1983-84. The total production of various handicrafts items is estimated to have been of the order of Rs. 81.37 crore ending 1982-83 which was only Rs. 20 crore eight years back. Correspondingly, exports rose to Rs. 39.92 crore in 1980-81 from Rs. 7.5 crore in 1974-75. There has been fall in the exports to Rs. 36 crore in 1981-82 and Rs. 33 crore in 1982-83. Part of this decline could perhaps be due to worsening of West Asia situation but other factors such as quality control and exploration of new markets are to be taken care of.

The State of Jammu and Kashmir has a rich tradition in

handicrafts. The skill of the craftsmen and their capacity for intricate workmanship are assets which can help development on a much large scale. Many States when they think of development consider only the establishment of major industrial projects which have become the status symbols of progress. However, in terms of maximum and extensive benefit to the people, apart from creating employment opportunities for people where they are and avoiding the emergence of urban slums, there is much to be said for handicrafts and small scale units.

Handicrafts of Kashmir are as beautiful as the valley itself. The fame of Kashmiri shawls, the whole of one of which will pass through a signet ring, has for centuries past spread to the farthest ends of the earth, its carpets compete successfully with the Chinese, Turkish ones; its silver-ware compares favourably with that turned out by the most fashionable shops in London; furs that delight the fair sex and might have come from Paris, and countless other articles of use and adornment, which are made to perfection.[1] From antiquity the people of Kashmir have been pursuing their arts and crafts and due to their ever rising demand in the foreign countries, the State of Jammu and Kashmir today is on world map of export market. Many art lovers have the cherished desire of decorating their drawing rooms with Kashmiri carpets and these are the major foreign exchange earner of Kashmir.

In the State where handicrafts have already proved their worth and where there are vast areas so cut off as to make it impossible for major modern industries to be set up, a vigorous policy for developing handicrafts can be specially rewarding. The capital investment in handicrafts is low, their employment potential is high and their location can be in the remotest parts of the State.

Unfortunately, for quite some time now, handicrafts in the State have remained in a static condition. The bulk of them are localised in and around Srinagar city. The market which they cater to consists primarily of the tourists who visit the

State and whenever there is decline in tourism, the handicraft producers are in distress.

In the world of today the tradition of handicrafts is a dying one as more and more people prefer to work in factories or such professions which may give them more money and pursuit them to live in cities. Carpet weaving is slowly being given up by Iran. Hand carved furniture has become rarity, yet there is demand for it. The question is of organising production and marketing of Kashmiri handicrafts in a manner which would enable them to compete in the domestic and world market. No reliable data was available on this subject earlier to 1973. In this year the Statistical Division of the Directorate of Handicrafts undertook a comprehensive survey of handicrafts and submitted a detailed report in the year 1973. It is this report which has provided the basis for the report entitled "Handicrafts a development plan in two volumes" submitted by Industrial Development Services, New Delhi.

The Development Review Committee (The Jha Committee) and Digest of Statistics have drawn heavily on this report. Observations are also made by and large on the basis of this report which has done a pioneering work in this sector. The report is based on the Survey of 149870 households of Srinagar district and 10 pocket each of Baramulla and Anantnag districts. It has been observed that 41300 households are engaged in the handicrafts. In all they have estimated that 78509 artisans both males and females carry on handicrafts business. These include 38988 workers who work during off season because they are mainly cultivators. The position of Handicraft Industry is given in Table 20.1.

Jammu and Kashmir Handicrafts (Sales & Export) Development Corporation Ltd.

The handicrafts of Jammu and Kashmir State have received global acclaim for their exquisite draftsmanship and elegance. Before independence the artisans and craftsmen were exploited by the middlemen and it was only after independence that the idea of providing market to the products of the

TABLE 20.1

Position of handicrafts industry

Years	Value of direct export (Rs. in crore)	Production (Rs. in crore)	Employment (Nos. in lakhs)	Training Centres (Nos.)	Trainees trained (Nos.)
1979-80	37.82	48.86	1.34	389	9638
1980-81	39.92	57.82	1.44	421	4500
1981-82	36.20	68.54	1.51	445	5790
1982-83	33.20	81.37	1.65	453	6408
1983-84	37.00	89.50	1.74	459	7301

Source : Compiled from Digest of Statistics, Department of Planning and Development, Government of Jammu and Kashmir.

craftsmen was conceived and an organisation named Kashmir Government Arts Emporium came into existence and it worked as a unit of Jammu and Kashmir Industries Ltd. In the year 1971 a separate corporation christianed Jammu and Kashmir Handicrafts (Sales and Export) Corporation was framed.

The Jammu and Kashmir Handicrafts (Sales and Export) Corporation has been playing a twin role providing market cover to the small artisans and petty karkhanadars and its emporia working as exposition windows for the traditional handicrafts of the State. Over a period of 14 years, the Corporation has registered remarkable progress. The authorised capital of the Corporation has gone up to Rs. 2.00 crore since its inception when it was only Rs. 1.00 crore. The subscribed and paid up capital of the Corporation has gone up to Rs. 99.10 lakh. The working capital of the Corporation has ascended to Rs. 426.49 lakh inclusive of Rs. 2.00 crore which has been received by the Corporation as a special loan from

Government of India. The Corporation has its branches almost in all big cities in the Country. The number of branches has gone up to 27 and the Corporation is contemplating to open some more branches within the country and market studies of the places i.e. Varanasi, Darjeeling and Hyderabad have already been taken up. A special emphasis has been laid to increase the foreign exchange earnings by exporting goods to various emporia. During the year 1983-84 goods worth Rs. 64.08 lakh were exported to various markets in the world. To give a boost to the exports from the State, a number of measures have been taken so far. An Air Cargo Complex was constructed at the cost of Rs. 31.00 lakh in Srinagar city. It provides all facilities for export business under one roof and it handles export cargo worth Rs. 22.00 crore out of the total of Rs. 40.00 crore from the State.

To identify potential of the State in various world markets, the Corporation has been participating in various trade fairs and exhibitions sponsored by Trade Authority of India and other such agencies. Efforts are being made to establish direct rapport with various importers and agencies. As a result importers from Abu Dhabi, Qatar, Muscat, Bahrein and Jeddah have evinced a keen interest in the handicrafts of the State. The Corporation is proposing to send carpets to Hamburg (West Germany) where arrangements have been made with HHEC of India for putting carpets of the State on sale in their warehouse. During the current year, the Corporation is participating in 9 (nine) foreign Exhibitions i.e. Paris, Baghdad, Frankfurt, Bermingham, New York, Doha, Sharja, etc. During the month of September, 1985, the Corporation had its Exhibition in Sweden. From 10th of October, 1985, the Corporation is participating in collaboration with HHEC of India in Kuwait Exhibition.

Construction of the Handicrafts Complex has also been taken in hand in order to establish a better coordination in development of Industries and exports. The Complex will be housing all the offices associated with the development of handicrafts in the State. A washing and drying chamber of hand knotted carpets likely to entail a total cost of Rs. 75.00

lakh has been decided to be set up in Srinagar. A washing shed for Crewel and Numdha is also to be constructed in Anantnag. A common facility Centre for seasoning of Walnut wood is also on anvil. To ensure export of quality goods, a quality control office is also housed in the Air Cargo Complex. It assesses the quality of the products to be exported to various parts of the world. Definite parameters of quality have been evolved for the export of various products.

The slump in tourist traffic affected the handicrafts industry as a whole and in pursuance to the policies of the Government, the Corporation had to come in a big way to provide market support to the craftsmen who had undergone an economical depression due to fall in the tourist traffic. A special purchase drive was launched by the Corporation to pull out the poor craftsmen from the economic morass. The Corporation has so far procured goods worth about Rs. 304.33 lakh from various Craftsmen/Petty Karkhanadars of the State from July 1984 upto ending September 1985, under Special Procurement Prorgramme. The support thus provided by the Corporation to the Artisans have given them a great sigh of relief. In this connection Central Government has provided a loan assistance of Rupees two crore. To ensure the take-off of these goods thus procured, Special Exhibitions are being held in various parts of the country. Besides this, a special drive has been launched to reduce the inventories of stocks in various branches by introducing special rebates and discounts in all the branches. Advertisement campaign both on the national network of Doordarshan and through national papers has been launched.

Despite recession in the market, the turn over of the Corporation has been showing significant upward trend. In the year 1979-80, it was Rs. 153.21 lakh and during 1983-84 it has gone up to Rs. 235.50 lakh. But with the infliated inventory of the Corporation need for finding out outlets has increased and about twenty-six Exhibitions in the country are being organised in various parts of the country. Presently three such exhibitions are going on, two in Srinagar and one in Jaipur.

Besides the Corporation is also imparting training in Carpet Weaving under Massive Carpet Scheme. Through 55 Advance Training Centres, out of which 30 Centres are being financed by the Government of India and 25 by the State Government.

Activities of J & K State Handloom Development Corporation

In the year 1976-77 Jammu and Kashmir Government with the financial assistance of Government of India started two Projects in Handloom Sector, one at Pampore in Kashmir Valley and other in Samba, Jammu. These two Projects came into being with the objective of providing raw material, technical know-how, design development and marketing cover to the weavers in the two Projects. The Samba Project was for cotton products and Pampore Project for woollen products. With the expansion of the activities of these Projects, J&K State Handloom Development Corporation came into being in the year 1981.

Basic information about Handloom Development Corporation

1. Year of start	29th June, 1981
2. Authorised share capital	Rs. 3.00 crore
3. Paid up share capital	Rs. 1.39 crore

The Jammu and Kashmir State Handloom Development Corporation has been provided the technical financial and marketing cover of the Handloom industry in Jammu and Kashmir State. The Corporation is giving cover to 6,250 weavers in different Projects/factories located all over the State. The number of these Project/factories is nine and are located at Pampore, Kralpora, Bandipora, Kanihama, Udhampur, Samba, Poonch-Rajouri, Rambagh (Srinagar) and Sheerin Bagh (Srinagar).

75% of the cost of loom provided to a weaver is subsidised and the remaining 25% is recoverable. Raw material is provided to the weavers and the woven products are taken back

by the Corporation after they are being paid wages on account of weaving. During the year 1984-85 we have been able to weave about 9.60 lakh metres of fabric, both woollen and cotton in the Projects with an approximate value of Rs. 3.00 crore. The Corporation has achieved record sales of Rs. 2.50 crore on account of sale of the products.

For the year 1985-86 a target of producing 14.9 lakh metres has been fixed and sale target of Rs. 4.65 crore.

Products of the Corporation

The woollen products of the Corporation are tweeds, blankets, blazer, loies, shawls, chadders and dussas. The woollen products are mostly woven in Pampore Project (Zone A and Zone B) and covers over one thousand looms in Pulwama, Tral, Chadoora and Kralpora. We have been successful in utilising the local Kashmir wool, procured directly from the breeders of the State by the Sheep Products Development Board. Spinning is done at Bemina.

Common Wealth Secretariat rendered useful assistance to the State by providing services of an expert on handlooms. He worked for about two years in the State and successfully developed the tweed designs which have been widely accepted in the State and outside the State.

Kani Shawl Project

Kani Shawl is one of the most attractive and traditional handicrafts of Kashmir. Due to the loss of patronage of weavers of this craft and high cost of the weaving charges, the craft has now dwindled and is confined to village Kanihama. The shawl is known for its intricate designs and it is woven by two weavers with the help of Kanies. It takes six months for weaving a shawl of 2×1 metres dimensions. The Corporation has replaced the Pashmina yarn by rafal and kept the design intact. This has reduced the price and time taken for its weaving, with the result the cost of the production has

been reduced. Presently, we are operating 21 looms for this type of weaving.

Production of Silk

Out of silk handlooms run at Ram Bagh Handloom Factory, Corporation produces silk sarees printed and plain dress material, scarves etc.

Cotton Products

Cotton products bed sheets, dusooti for crewel embroidery dress material, masnands, curtain cloth etc. are mostly localized in Samba Project.

Technical Guidance

A number of measures have been taken to improve the saleability of the products being manufactured by the weavers. The Government of Jammu and Kashmir has requested to Commonwealth Secretariat to arrange a Design Expert for providing designs and technical support to the weavers. It has identified an expert of repute and the State Government has communicated its acceptance. This expert is expected to be with us very shortly.

Intermediate Technology Development Group, a non-profit international technical and funding agency has been approached for improving the spinning, carding and weaving in far flung areas. The Group has agreed in principle to take up a project in Drass, Kargil area.

Processing Facilities

(*a*) *Samba Processing House* : Around Samba the Corporation has distributed about 1,000 looms for weaving of cotton products. At present the grey fabric is being sent to Amritsar and other places outside the State for getting it finished. Tremendous efforts are involved besides huge expenditures and delay. To overcome these difficulties a Processing House

has been set up at Samba. The total investment on the Project is of the order of Rs. 82.25 lakh and machinery has been purchased and installed. Electrification is in progress and the unit is expected to be commissioned within two months. The Corporation has incurred an expenditure of about Rs. 60.00 lakh till date.

(*b*) *Processing House for Woollens* : For woollen products presently the facilities available in UNDP are utilized partly and the products are sent outside the State for finishing. The Organisation is expecting to establish a separate unit or add machinery in UNDP so as to get the total products of the Corporation finished in the State itself. A Project Report is under preparation and is expected to cost about Rs. 1.00 crore.

Sales

The success of the Corporation depends entirely on its ability of expanding the market for its products. With this aim in view the Corporation has already opened about 110 sales outlets within the State of Jammu and Kashmir, some of these are being run directly by the Corporation and some through Commission Agencies. The Corporation has also appointed agents for Delhi, U.P., Rajasthan etc.

Figures of Production and Sale

1, Sale for the year 1981-82	Rs. 48.74 lakh
2. Sale for the year 1982-83	Rs. 91.73 lakh
3. Sale for the year 1983-84	Rs. 202.00 lakh
4. Sale for the year 1984-85	Rs. 250.448 lakh

	Quantity	*Value in lakhs*
1. Production for the year 1981-82	2.45 lakh metres	72.59
2. Production for the year 1982-83	3.50 lakh metres	105.00
3. Production for the year 1983-84	4.37 lakh metres	164.562
4. Production for the year 1984-85	9.50 lakh metres	335.65.

REFERENCES

1. Mohammad Yasin, "Arts and Crafts of Kashmir", *Kashmir Today*, July 1976, p. 19.

21

Financial Institutions

Commercial Banking

An eminent historian observes that "it is a cruel mortification in searching for what is instructive in the history of the past times, to find that the exploits of conquerors who have desolated the earth and freeks of tyrants, who have rendered nations unhappy, are recorded with minute and often disguesting accuracy, while the discovery of useful arts and the progress of the most beneficial branches of commerce are passed over in silence and suffered to sink *in oblivion*." This remark is strictly applicable to the origin of banking in J&K State. We have little information as to what kind of banks existed in the State in early ages or on what system they conducted their business. We, therefore, have to depend upon stray references and the information provided by the Sahukars and merchants of the State for this purpose.

However, so far as organised commercial banking in the State is concerned, it started with the establishment of Muslim Bank (merged with the then Imperial Bank of India in 1923) in 1902 at Srinagar, followed by the opening of a branch office of the Punjab National Bank Limited in 1908 at Srinagar and a branch office at Jammu in 1914. The progress of Commercial banking in the State, till recently has been quite sluggish. Till the end of 1938, when the Jammu and Kashmir Bank was

incorporated, the State had only five bank branches and by the close of 1947, the number of Commercial bank branches had increased to 17, out of which 7 branches (excluding two branches of the bank lost in Pakistani raids and one branch at Poonch closed by the Bank) were of the Jammu and Kashmir Bank. From 1947 to 1955 the expansion of Commercial banking was almost negligible but after 1955 the number of branches of the banks had started increasing though slowly and in 1961 the total number of commercial banks branches increased to 25, with J&K Bank alone having 13 branches. The process of expansion of banking in the State was again restricted by the fluid conditions created by the outbreak of Indo-China war in 1962 and Indo-Pak war in 1965. Between 1962 and 1966 no new branch was added to the existing 25 branches. But after 1968, with the introduction of Social Control over banks and the Government's take over of the fourteen largest banks in the country in 1969, a real breakthrough is noticeable in the banking sector of the State like other States in the country.

Banking Industry

The banking institutions have spread a network of branches throughout the State and the number of branch offices has multiplied nearly four-fold from 159 in 1974 to 601 in March, 1983. Population dependence per bank branch has come down from 31 thousand in 1974 to 10 thousand in 1982. Bank service has been taken to every nook and corner of the State and an attempt made to ensure the spread of the facility evenly over the various districts of the State. The spread of bank branches over the various areas is tabulated in Table 21.1.

It is evident that expansion of bank service to various districts is progressing very rapidly. New offices have been mostly coming up in comparatively backward districts and the share of Srinagar and Jammu districts which previously accounted for over-whelming concentration of bank offices has started to reduce. Srinagar/Badgam which previously accounted for 25% of the bank offices have now only 21% and Jammu whose share previously accounted for 26% accounts for less than 21% of

TABLE 21.1

Spread of bank service

District	Position			
	1981	1982	1983	Ending March, 1984
Anantnag	36	43	46	53
Pulwama	18	24	25	31
Srinagar	85	97	102	108
Budgam	14	19	26	27
Baramulla	38	62	81	92
Kupwara	12	22	36	43
Leh	5	7	9	11
Kargil	4	5	6	8
Jammu	110	121	124	125
Udhampur	28	37	40	43
Kathua	30	38	39	41
Doda	23	32	33	33
Poonch	12	14	14	17
Rajouri	17	19	20	26
Total	432	540	601	658

Source : Reserve Bank of India.

offices now. Baramulla/Kupwara have improved their share and so have Doda, Leh, Kargil, Poonch and Rajouri. The population dependence per bank office has considerably reduced from 31000 to 10000. The districts of Srinagar and Jammu much below this norm continue to be served better. Kathua,

Baramulla, Udhampur and Kupwara with population dependent per bank office around the State average are fairly covered. Pulwama, Poonch, Rajouri, Anantnag, Badgam and Doda with higher dependence per bank office continue to lag behind. An important development during the recent years has been quick expansion of banking facilities in rural areas. Out of 601 bank offices ending March, 1983 in the State, 417 were located in rural areas and 54 in semi-urban areas. Thus 471 branch offices viz., 78% of them were functioning in the rural and semi-urban areas. There were also 162 offices of the Regional Rural Banks in the State. The involvement of rural banks in the IRDP has enhanced their role in rural development.

There has been considerable expansion in the bank business and the total deposits have gone up nearly six times from Rs. 8,213 lakh in 1974 to Rs. 45,723 lakh in March, 1983. The per capita deposits have moved from Rs. 165 to Rs. 727 during the same period. Advances have shown in nine-fold growth from Rs. 2,440 lakh to Rs. 22,340 lakh. The advances are now 49% of the deposits against less than 30% in 1974. Again the per capita advances are now Rs. 355 against Rs. 50 in 1974. The growth of deposits and advances is reflected in Table 21.2.

TABLE 21.2

Growth of deposits and advances

(Rs. in lakh)

Year	Deposits	Advances	Per capita (Rs.) Deposits	Advances
1974	8213	2440	165	50
1978	27857	8496	504	154
1980	37589	11554	646	198
1983 (March)	45723	22340	727	355

Maximum deposits have been mopped by the other scheduled commercial banks through their 231 branches. The amount of deposits with such banks was Rs. 205.66 crore (45%). This was followed by the nationalised group of banks and the State Bank group with Rs. 155.02 crore (34%), Rs. 85.61 crore (19%) respectively. The regional rural banks started recently have made a modest achievement of Rs. 10.94 crore (2%). In the matter of advances the other scheduled banks lead with Rs. 120.76 crore (54%) and are followed by the nationalised group of banks with Rs. 62.02 crore (28%) and the State Bank group with Rs. 34.71 crore (15%). Here also the regional rural banks are at the bottom with Rs. 5.91 crore (3%) only. As far the spread of the deposits and credit over the various districts of the State, the position is reflected in Table 21.3.

The credit advance ratio is 49 compared to 69 for the country. The ratio has shown great improvement compared to 1974 when it was 30. The ratio is, however, very poor in certain districts, viz., Kargil (8), Leh (15), Poonch (11), Rajouri (18) and Udhampur (33). This is explained by the slow pace of industrialisation in these districts.

The scheduled commercial banks have made a considerable shift in their financing pattern in favour of agriculture and allied activities during the past eight years. Against a total outstanding of Rs. 0.93 crore in this activity in December, 1974, the amount outstanding in the end of December, 1980, was Rs. 12.66 crore. Agriculture accounted for 4% of the total outstanding in 1974. The percentage tripled to 12 in 1980. Industry, the next important group has, however, indicated decline in its share of outstanding from 58% to 31% though the total amount has more than doubled. Trade and transport have accounted for 38% of the outstandings against 16% in 1974. The pattern of outstandings against the important occupations is indicated in Table 21.4.

The sale of small saving security programme has made considerable progress. The gross sale moved from Rs. 9.86 crore in 1973-74 to 31.26 crore recording annual growth rate of 24%. Correspondingly, the net sale shot up from Rs. 3.08 crore to Rs. 11.82 crore with annual growth rate of 32%.

TABLE 21.3

Deposits and credit in various districts (March, 1983)

(Rs. in lakh)

District	Deposits	Credit	Credit as %age of deposits
Anantnag	1882	1183	63
Badgam	764	525	69
Baramulla	2740	1176	43
Doda	1072	502	47
Jammu	14248	5280	37
Kargil	257	20	8
Kathua	1698	1265	74
Kupwara	552	342	62
Leh	517	80	15
Poonch	573	62	11
Pulwama	939	574	61
Rajouri	752	134	18
Srinagar	17600	10486	60
Udhampur	2129	711	33
Jammu & Kashmir	45723	22340	49

The per capita gross and net sales have moved from Rs. 20 and 6 in 1973-74 to Rs. 50 and 19 in 1982-83. Considerable improvement has been made in the volume of savings through the Small Savings Organisation and the insurance activity also.

The progress of small savings securities is reflected in Table 21.5.

TABLE 21.4

Outstanding bank loans

(Rs. in crore)

Occupation	1974 (December)		1980 (December)	
	Amount	percentage	Amount	percentage
Agriculture & allied activities	0.93	3.73	12.66	12.43
Industry	14.47	58.07	32.01	31.43
Trade & Transport	4.06	16.29	39.25	38.54
Personal and professional services	1.14	4.57	5.51	5.41
Others	4.32	17.34	12.42	12.19
Total	24.92	100.00	101.85	100.00

Jammu and Kashmir State Financial Corporation

The Jammu and Kashmir State Financial Corporation was established in December, 1959, under the State Financial Corporation Act, 1951. It was established for meeting the financial requirements of small and medium scale industries and granting financial assistance to industrial concerns engaged or to be engaged in manufacture, preservation, processing, mining, hotel industry, transport of passengers or goods by road or by water, maintenance, repair, testing or servicing of machinery or vehicles or vessels or motor boats, trailers or tractors, assembling, repairing or packing of any article with the aid of machinery or power.

The Corporation grants financial assistance for the acquisition of block assets consisting of land, factory building and plant and machinery for setting up new ventures or for renovations, modernisation, diversification, expansion of the existing ones. The assistance can be granted in the form of

TABLE 21.5

Progress of small savings

Year	Total sale of securities (Rs. in lakh)		Per capita sale (Rs.)	
	Gross	Net	Gross	Net
1973-74	986.45	307.81	19.78	6.17
1978-79	1717.38	426.30	30.27	7.51
1980-81	2434.45	1005.01	40.75	16.82
1981-82	2636.42	1025.16	46.26	16.72
1982-83	3126.39	1182.12	49.69	18.79

loans, subscriptions and/or underwriting of shares and guarantees for purchase of machinery on deferred payment terms up to a limit of Rs. 15.00 lakh to individuals and partnership firms and upto Rs. 50.00 lakh to cooperative societies and limited companies (public and private) provided their paid-up capital and free reserves do not exceed Rs. one crore.

All the fixed assets of the borrowing industrial concerns comprising land, factory building and plant and machinery are mortgaged to the Corporation as security for loan. Where advances are granted for purchase of plant and machinery only or motor vehicles or for construction of houseboats, hypothecation charge is obtained over such movable security. The transport loans are repayable in monthly instalments upto 6 years whereas the loans granted to industrial units are repayable in half-yearly instalments, and in the case of hotels and houseboats in two periodical instalments in a year linked with tourist season, over a period of 10-15 years depending on the debt service coverage ratio of 2:1 with an initial repayment moratorium of 1 to 2 years. In case of loans to artisans, village and cottage

industries and small scale industries falling in tiny sector, an initial moratorium of two years is allowed for repayment of principal.

The Corporation is authorised to grant foreign exchange loans out of the World Bank line of credit to industrial concerns for setting up new industrial projects and/or for expansion, diversification, modernisation or renovation of the existing units provided a portion of the plant and machinery installed by such units is imported from one of the countries which are members of the World Bank and Switzerland. The loans provided to cover the cost of imported plant and equipment and/or in special cases, the cost of technical know-how and engineering fee. The rate of interest on foreign exchange loan is 11½% per annum. The Industrial Development Bank of India has made special arrangements with the import trade control authorities for speedy clearance of import licence applications for financing imports out of this line of credit.

Financial assistance to artisans and village and cottage industries is granted in the form of composite term loans upto Rs. 25,000 for acquiring equipment and/or working capital without prescribing any margin. Village and cottage industries for the purpose of the scheme are defined as Artisans (irrespective of location) or small industrial activities viz. manufacturing processing, preservation and servicing in villages and small towns with population not exceeding 50,000 involving utilisation of locally available natural resources and/or human skills (where individual requirements do not exceed Rs. 25,000). Such loans attract interest @ 9% per annum. A moratorium of 2 years is allowed for the commencement of instalments of principal while a moratorium of 18 months is allowed for payment of interest in respect of these loans.

The Corporation has finalised co-ordination with all the commercial banks operating in the State of Jammu and Kashmir whereby the applications of the promoters, both for the term loan and the working capital, will be simultaneously processed and the sanctions will be communicated to the promoters expeditiously but in any case within a period of three months, if the required data is furnished by the promoters in time to the lending institutions. This will help the promoters in tying

up their total financial requirements before taking up the implementation of the project.

Workings Results

Position of the working result of the Corporation achieved during the last four years is compared in Table 21.6 with the position during the year 1984-85, based on mercantile system of accounting.

Review of Working

The flow of applications for grant of financial assistance showed an increasing trend. The Corporation received 950 applications for amounts aggregating Rs. 298.61 lakh pending consideration at the beginning of the year 1984-85 and the Corporation has thus to handle 1047 applications for amounts totalling Rs. 2151.36 lakh. 925 applications for Rs. 1784.27 lakh were sanctioned during 1984-85 while one application for an amount of Rs. 1.53 lakh was closed. An amount of Rs. 144.83 lakh was reduced at the time of sanction of the applications. At the close of the year the Corporation had only 121 (one hundred and twenty-one) applications involving an amount of Rs. 221.21 lakh pending consideration. Most of these applications have been disposed of during the current financial year.

The position of applications received and disposed of during the year compared to the previous four years is given in Table 21.7.

During 1984-85 the Corporation continued encouraging artisans and craftsmen by providing financial assistance under 'Advances to Artisans, Village and Cottage Industries' Scheme. Whereas the sanctions totalling Rs. 67.59 lakh to 330 units were almost of the same order as granted during the previous year (at Rs. 68.00 lakh to 364 units), the disbursements at Rs. 83.01 lakh to 446 units registered an appreciable increase of 198.5% and 127.6% amountwise and numberwise respectively over the figures of previous year (Rs. 27.81 lakh to 196 units).

TABLE 21.6

Results achieved by the Jammu and Kashmir State Financial Corporation

(Rs. in lakh)

Particulars	1980-81	1981-82	1982-83	1983-84	1984-85
(a) Total Income	129.99	169.86	277.43	376.71	447.44
(b) Interest paid on borrowings	60.17	78.78	130.00	193.60	270.71
	(46.4)	(46.3)	(46.9)	(51.4)	
(c) Expenses on issue of bonds	0.51	0.63	1.37	2.15	2.75
	(0.4)	(0.5)	(0.5)	(0.5)	
(d) Aministrative and other expenses	21.37	26.86	40.10	45.75	54.54
	(16.4)	(15.8)	(14.5)	(12.1)	
(e) Profit before tax (a—b+c+d)	47.94	63.49	105.96	135.21	119.44
	(36.8)	(37.3)	(38.2)	(38.2)	
(f) Provision for taxation	23.23	25.60	38.07	54.60	41.39
	(17.9)	(15.1)	(15.1)	(13.7)	
(g) Profit after tax	24.71	37.89	67.89	80.61	78.05
	(19.0)	(22.3)	(24.5)	(21.4)	
(h) Provision for reserves	19.93	31.67	50.90	54.89	63.15
	(15.3)	(18.6)	(18.3)	(14.6)	
(i) Surplus after taxation and reserves	4.78	6.22	6.99	15.72	14.90
	(3.7)	(3.7)	(2.5)	(4.2)	
(j) Guaranteed dividend	4.78	6.22	6.99	15.72	14.90
	(3.7)	(3.7)	(2.5)	(4.2)	
(k) Income as % of funds employed	9.6	9.55	19.3	11.0	10.50
(l) Profit before tax as % of paid up capital	32.1	32.6	43.3	26.1	26.27
(m) Profit after tax as % of paid-up capital	16.6	19.5	27.7	21.5	17.16
(n) Book value per share of Rs. 100	207.20	198.72	200.00	183.84	172.50

(Figures in parentheses indicate percentages)

TABLE 21.7

Applications received and disposed of during the past five years

(Rs. in lakh)

	1980-81		1981-82		1982-83		1983-84		1984-85	
	No.	Amount	No.	Amount	No.	Amount	No.	Amount	No.	Amount
1. Applications received	437	933.14	453	1198.36	800	1557.32	805	1500.70	950	1853.25*
2. Applications sanctioned	411	732.79	434	940.62	705	1193.53	832	1427.69	925	1784.27
3. Previous sanctions cancelled	9	63.66	5	6.24	9	39.00	44	204.86	50	184.31
4. Applications closed, rejected, withdrawn and amount reduced	4	168.76	3	143.15	23	219.17	6	140.81	1	1.63
5. Applications under consideration at the end of the year	42	107.20	58	221.79	130	366.41	97	298.61	121	144.83** 221.21

*Includes an amount of Rs. 3.59 lakh increased at the time of sanction.
**Amount reduced at the time of sanction.

The total sanctions and disbursements under the scheme since its inception in 1979 till 31-3-1985 aggregate Rs. 166.98 lakh to 918 units and Rs. 131.18 lakh to 828 units respectively.

One loan of Rs. 2.00 lakh was sanctioned out of special capital during the year raising the total sanctions under this category to Rs. 11.20 lakh in favour of 15 units. After accounting for the cancellation of assistance to the tune of Rs. 1.65 lakh, the net sanctions under the scheme aggregated Rs. 9.55 lakh to 13 units. An amount of Rs. 0.60 lakh was disbursed under this scheme during the year raising the total disbursements at the end of year to Rs. 4.22 lakh in favour of 10 units.

Gross sanctions and disbursements under this scheme stood at Rs. 6.15 lakh in favour of 14 units and Rs. 2.20 lakh to 8 units as on 31-3-1985 respectively. One loan for Rs. 0.09 lakh was cancelled raising the total cancellation to Rs. 2.53 lakh. The net sanctions under this scheme thus stood at Rs. 3.62 lakh to 10 units at the end of the year under report.

Industrial Development Bank of India

IDBI was established on July 1, 1964, under the Industrial Development Bank of India Act, 1964, as a wholly owned subsidiary of the Reserve Bank of India. In terms of the public Financial Institutions Laws (Amendment) Act, 1975, the ownership of IDBI has been transferred to the Central Government with effect from February 16, 1976. The most distinguishing feature of the IDBI statute is that it has been assigned the role of the principal financial institution for co-ordinating in conformity with the national priorities, the activities of the Institutions engaged in financing, promoting or developing industry. IDBI has been assigned a special role to play in the matter of :

(1) Planning, promoting and developing industries to fill vital gaps in Industrial structure;

(2) Providing technical and administrative assistance for promotion, management or expansion of industry, and

(3) Undertaking market and investment research and surveys as also techno-economic studies in connection with development of industry.

According to the statement on Industrial policy of the present government, IDBI is also expected to coordinate guide and monitor the entire range of credit facilities offered by other institutions for the small and cottage sector. Besides, IDNI performs the functions of an Export-Import Bank of the country.

IDBI is empowered to finance all types of industrial concerns engaged or to be engaged in the manufacture, processing or preservation of goods, or in mining, shipping, transport, hotel industry, generation or distribution of power, fishing or providing share facilities for fishing or in the maintenance, repairs, testing or servicing of machinery or vehicles, etc. or for the setting up of industrial estates. The Bank can also assist industrial concerns engaged in the research and development of any process or product or in providing special or technical knowledge or other services for the promotion of industrial growth. Besides, IDBI provides finance for export of engineering goods and services on deferred payment basis.

IDBI has recently set up a Small and Village Industries Wing to evolve appropriate policy framework, identify areas for immediate action to promote the growth of small and village industries including those in the tiny sector. The wing also acts as a focal point to coordinate, guide and monitor the entire range of credit facilities available to small, tiny and village industries sector.

Direct Assistance

IDBI's direct assistance scheme to Industrial concerns takes the form of loan, subscription to/under writing of issues of shares, bonds or debentures and guarantees for the loans and deferred payments. Assistance is usually granted for setting up new projects as well as for expansion, modernisation or renovation scheme of existing units. IDBI normally, provides direct assistance for units established as public limited companies in the private, joint and public sectors and those in the cooperative sector. It concentrates on projects involving large capital outlay or sophisticated technology, projects promoted by technician entrepreneurs, projects located in less developed areas of the country and those exploring new areas of technology which might not find ready support from other institutions.

Soft Loan Scheme

IDBI extends soft loans to units in selected industry groups viz. cotton textiles, jute, cement, sugar and specified engineering industries to enable them to overcome backlog in modernisation, replacement and renovation of plant and machinery so as to achieve higher and more economic levels of production and improve their competitiveness.

Technical Development Fund Scheme

In order to promote fuller utilisation of capacity, technological upgradation and export development, Government of India set up in March, 1976, Technical Development Fund (TDF) for providing foreign exchange for import of small value balancing equipment, technical know-how, foreign consultancy services and drawings and designs.

Refinance of Industrial Loans

Under this scheme, IDBI provides replenishment finance (refinance) to the eligible institutions viz. Commercial Banks, Co-operative Banks, Rural Banks, State Financial Corporations (SFCs) or State Industrial Development Corporations/State Industrial Investment Corporations (SIDC/SIIC) in respect of their loans to industrial concerns.

Bills Rediscount Assistance

IDBI rediscounts bills/promissory notes arising out of sales of indigenous machinery on deferred payment basis. Under

the scheme, bills/promissory notes drawn in favour of or by the machinery manufacturers are discounted by them in the first instance with their bankers who in turn rediscount the same with IDBI. Facilities under the scheme are also available to approved design engineeering concerns which get the machinery fabricated according to their own specifications and design under their supervision and sell them under their own names. Sales made by selling agents/distributors of the machinery manufacturers to purchasers on deferred payment basis are also eligible for assistance, provided the agents/distributors have paid in full to the manufacturers for the machinery under sale before the execution of relative bills/promissory notes. The period of deferred payment ranges between six months and five years.

Seed Capital Assistance

With a view to assisting entrepreneurs who have skills but lack finance to put in the requisite promoters contribution, IDBI has been operating two Seed Capital Schemes viz.,

(i) SFCs special share capital scheme under which SFCs provide seed capital assistance to projects in small scale sector from their special class of share capital contributed by concerned State Government and IDBI in agreed proportion; and

(ii) IDBI's own scheme for such assistance to be operated mainly through SIDCs/SIICs in respect of medium size projects costing upto Rs. one crore.

Export Finance Counselling

In the field of export finance, IDBI operates three schemes covering export of engineering goods and services on deferred payment terms, viz.,

(i) Direct export loans in participation with approved commercial banks;

(ii) Refinance of medium-term export credit granted by approved commercial banks; and

(iii) Direct credit to overseas buyers to enable them to import Indian Capital goods. Besides, IDBI also offers lines of credit to foreign financial institutions for financing import of capital goods from India.

Overseas Investment Finance Scheme

The Scheme has come into effect from the 15th March, 1979. The salient features of the scheme are indicated below :

(a) Industrial or consultancy concerns and individuals whose proposal for promotion of the joint venture has been approved by Government of India as well as the Government and the concerned authorities in the host country are eligible to borrow under the scheme.

(b) Under this scheme the finance will be made available by way of Term Export Credit extended in participation with eligible commercial banks or by IDBI by itself.

Life Insurance Corporation

Life Insurance Corporation of India is the single largest company doing insurance business in the State. During 1982-83

TABLE 21.8

Progress of the insurance business of the Life Insurance Corporation

Year	No. of policies issued ('000)	Total sum assured (Rs. crore)	Average sum assured per policy (Rs. '000)	Total Ist year premium (Rs. lakh)	Average Ist year premium per policy (Rs.)
1977-78	9	10.92	12.13	56.55	628.33
1978-79	8	11.31	14.14	60.74	759.25
1979-80	10	16.45	16.45	80.50	805.00
1980-81	10	17.94	17.95	85.70	857.00
1981-82	10	21.89	22.91	60.28	669.78
1982-83	11	23.58	21.44	65.17	592.45

the total number of policies issued was 11000. This is the highest number since 1977-78. Sum assured has shown great improvement from Rs. 10.92 crore to Rs. 23.58 crore. The average sum assured per policy has also made considerable improvement from Rs. 12.13 to 21.44 thousands. The first year premium has moved up from Rs. 56.55 lakh to 65.17 lakh. The progress of the insurance business has been reflected in Table 21.8.

22

Economic Planning

General

For economic planning the State of Jammu and Kashmir has been declared a special category state and the central assistance and the plan size are fixed on this consideration. Priority in the plan programmes from year to year has been accorded to the generation of Hydel Power, agriculture including irrigation, development of Handicrafts, Tourism promotion and exploitation of forest wealth. Power generation is a capital intensive sector and due to limited finances of its own, the State has not been able to harness its hydel potential which is estimated around 10000 MW mainly from Chenab, Jehlum and Sindh basins which drain the State. Of late, the State has also witnessed a decline in its tourist traffic causing further pressure on its revenues. From the environmental and ecology point the exploitation of forests has been taken up in a controlled manner which has resulted only in a modest increase from its forest revenues which otherwise are an important source of its internal revenues. Within the available resources and the central assistance the State Government is making sustained efforts to raise the potential areas for growth together with a balanced regional development covering backward pockets and vulnerable sections of the society like Scheduled Castes, Gujjar and Bakerwals etc.

The Planning and Development Department is headed by a

senior officer of the rank of Additional Chief Secretary who is assisted by technical and administrative divisional officers of the rank of Directors and Additional Secretaries. There are separate divisions for Perspective Planning and Economic Analysis, Plan Information and Monitoring, Area Planning and different sectoral units dealing with various sectors of economy. A Project Appraisal Division is also proposed to be established at the headquarters. The Department works under the policy directions of the Planning Minister who is presently also the Deputy Chief Minister of the State and the Minister Incharge Finance. To assist in framing an appropriate economic policy for the State, a high level Economic Policy Advisory Council has been set up. This council is headed by the Chief Minister and besides the Planning Minister, the Chief Secretary and the Planning Commissioner, the members include reputed economists and industrialists of the country.

Jammu and Kashmir is one of the few States in the country which have gone ahead with decentralised planning system since 1976. Each of the 14 districts of the State has a District Development Board which is headed by the Deputy Commissioner of the District who has since been designated as District Development Commissioner. Other members of these Boards are the members of State Legislature and the Parliament representing the district, elected Sarpanches from the Panchayats and representatives of women and backward sections of the society. A separate district plan is prepared for each district which is approved by the District Development Board before implementation. The District Development Commissioner exercises wide powers for issuing financial sanctions in respect of plan programmes though the investment pattern is decided as per the State level strategy adopted from plan to plan. To assist the District Development Board, there is a planning unit in each district which is headed by a Deputy Director drawn from the State Economics and Statistics Service. It is proposed to expand this unit by induction of subject matter specialists in the fields of Credit Planning, Agronomy, social development and land use. This is proposed to be done under the centrally

sponsored scheme of "Strengthening of District Planning Machinery".

The State has gone ahead with yet another landmark in the decentralisation of plan process. The concept of integrated block level planning has been introduced in May, 1985. Schemes and Programmes that could constitute block plan have been identified. A weightage formula for allocation of funds between within a district has been evolved. Though the district would contiune to be the modal unit for plan programmes, the implementation of block level schemes would be within the purview of block level officers, which is expected to not only expedite their execution but also result in an increased and more effective participation of the Panchayats for framing developmental programmes of their areas.

Special areas and backward sections of the society are given a specific attention in the plan programme of the State. A separate sub-plan for Leh and Kargil districts which constitute Ladakh region is framed every year on the basis of need and long term economic and social requirements. Infrastructure like power, irrigation and roads are given a priority attention in the matter of allocations so as to make available the basic core items and services required for a sustained growth of the area. For Gujjars and Bakerwals which is a nomadic tribe inhabiting higher reaches of the State depending mostly on sheep and milch cattle for their livelihood, the Government has started special programmes in the fields of education, housing, communication etc. A separate sub-plan is also framed for this section of the society which is closely monitored in the Planning Department.

Sixth Plan

The Sixth Plan of Jammu and Kashmir State was approved at Rs. 900.00 crore and the expenditure is estimated at Rs. 918.15 crore.

According to the tentative estimates State's Domestic Product at current price would have risen from Rs. 727.33 crore in 1979-80 and Rs. 1158.57 crore at the end of 1983-84, the latest year for which estimates are available. This indicates

an average annual growth rate of 14.81%. At current prices, the net State Domestic Product at constant prices of 1970-71 would have increased from Rs. 353.54 crore to Rs. 404.54 crore by the end of 1983-84 resulting in an annual growth rate of 3.61 per cent.

The foodgrains production is estimated to be 12.51 lakh tonnes during 1984-85 as against 11.12 lakh tonnes during 1979-80.

Total fertiliser consumption in terms of nutrients increased from 24 thousand tonnes in 1979-80 to 28.77 thousand tonnes in 1984-85.

Production of fruits is estimated at 6.73 lakh tonnes during 1984-85 as against 4.58 lakh tonnes in 1979-80.

Export of fruits has gone up from 3.50 lakh tonnes in 1979-80 to 4.65 lakh tonnes in 1984-85.

Against a target of 15.15 thousand hectares to be brought under Social Forestry during 1980-85, achievement has been 17.69 thousand hectares.

Against a target of 3.39 lakh beneficiaries to be assisted under I.R.D.P. during 1980-85, 1.66 lakh beneficiaries were assisted during the same period.

Against a target of additional surfaced road kilometreage of 1245.35 kilometres for 1980-85, there has been an achievement of 1998.70 kilometres.

Achievement of enrolment in Schools in the age group of 6 to 11 has been 7.23 lakh children that constitutes 97% of the population of this age group by the end of 6th Plan.

2.40 lakh students in the age group of 11 to 14 were enrolled for elementary education that constitutes 59% of the population in the age-group by the end of 6th Plan.

Under NREP, employment of the order of 68.72 lakh mandays during 1980-85 have been generated.

Additional 222 health sub-centres were established during the 6th Plan. 11 additional Primary Health Centres, 18 additional Subsidiary Health Centres and 6 additional Community Health Centres were established during the 6th Plan.

3760 villages have been covered under drinking water

supply in rural areas, by the end of 1984-85 which constitutes 57.82 per cent of the total villages.

5705 villages have been electrified by 1984-85.

Against 6.39 thousand units set up by 1979-80 under small scale industries sectors, 16.5 thousand units have been established by 1984-85 with corresponding employment, generation from 33.70 thousand persons to 75.80 thousand persons.

Irrigation potential has gone up to 321.92 thousand hectares by 1984-85 as against 246.60 thousand hectares by 1979-80.

Some of the other salient features of the 6th Plan include :

(i) Establishment of a separate University for Agriculture Sciences for devoting exclusive attention to the research and development needs of agriculture and livestock suited to agro-climatic conditions of the State.

(ii) An ambitious Social Forestry Programme aided by the World Bank, at an estimated cost of Rs. 23.74 crore for covering an area of 44,000 hectares with plantation of 11.30 crore trees has been launched.

(iii) Two Milk Producers Cooperative Federations, one each in Jammu and Kashmir regions, for increasing milk production and its marketing have been established.

(iv) An ambitious project with the World Bank assistance for ensuring improved and remunerative marketing for horticulture produce at an estimated cost of Rs. 24.22 crore has been launched.

(v) A cement plant at Khrew, a project in the State Public sector, was commissioned with an installed capacity of 600 tonnes per day of which capacity utilisation has reached upto 400 tonnes per day during 1984-85.

(vi) A modern Rosin and Turpentine Factory has been set up at Miransahib by the J&K Industries Limited, a State Public Sector undertaking.

(vii) A separate public sector enterprise, namely the J&K Handloom Development Corporation was set up for devoting special attention to the development of handlooms which like handicrafts, have a strategic role to play in generating employment in rural areas and supplementing agricultural incomes.

(viii) Major public sector enterprises in the Industrial Sector like J&K Industries Limited, State Industrial Development Corporation, Handicrafts (Sales and Export) Corporation, Small Scale Industries Development Corporation started making profits.

(ix) A modern indoor stadium with a seating capacity of 4500 was commissioned at a total cost of Rs. 4.25 crore that will promote physical culture in the State and also contribute towards tourism promotion.

(x) A prestigious Sher-i-Kashmir International Convention Centre at Srinagar constructed at a cost of Rs. 8.45 crore that provides for hosting a conference for 1700 people at a time has been commissioned and would add a new dimension to the tourist attraction for Valley and the State.

(xi) Sher-i-Kashmir Institute of Medical Sciences at a total cost of Rs. 35.77 crore was set up that will prepare students for post-graduation in specialised subjects and bridge crucial gaps in the health and medical care of the people of the State.

(xii) First College of Physical education in the State was also established during the plan.

(xiii) Two important bridges one on Tawi river and the other at Rambagh in two capital cities were completed.

(xiv) A major tourist attraction was established in Jammu city by developing a rocky hillock near Bahu Fort, which has been named as Bagh-i-Bahu at a total cost of Rs. 183.00 lakh.

Seventh Plan 1985-90

The State's 7th Five Year Plan has been finalised at Rs. 1400 crore (1984-85 prices). The funding of the Plan will be as shown in Table 22.1.

The sectoral distribution of public sector outlay by broad economic sectors is as shown in Table 22.2.

Salient Features

Highlights of the 7th Five Year Plan in different sectors of economy are indicated as under :

— University of Agricultural Science set up in the 6th Plan

TABLE 22.1

Funding of seventh plan

(Rs. in crore)

I. State's own resources	
(i) State's own resources without ARM	(—)582.23
(ii) Additional resources mobilisation	143.55
Total—State's own resources (i+ii)	(—)438.68
II. Central Assistance	
(i) Normal Central assistance	1820.68
(ii) Assistance for externally aided projects	18.00
Total—Central assistance	1838.68
III. Aggregate Resources (I+II)	1400.00

will take off in basic research work by establishment of departments of post-Graduate training and research in different disciplines relating to the agriculture and allied activities. All research activities presently with different departments of the State's administration have been transferred to the University for evolving an integrated academic set up.

— The scheme of massive assistance to small and marginal farmers implemented partially in the 6th Plan will also become operational during the plan period. All the components of the scheme viz. minor irrigation, fuel and fruit plantation and distribution of the mini kits shall be implemented in all the Blocks.

— The National Agricultural Extension Project (T&V) will take off with full provision of the State share provided in the plan.

— As per national guidelines the scheme of crop insurance has been introduced in the State with effect from 1985-86. It is proposed to create a State Crop Insurance Fund and also subsidise the insurance charges in respect of small and marginal farmers.

— In the Horticultural development of the State while

TABLE 22.2

Sectoral distribution of public sector outlay

(Rs. in crore)

Sector	Outlay for the 7th Plan	
	Amount	%age out of the total
Agricultural & Allied	149.75	10.7
Rural Development	139.02	9.9
Cooperation	6.50	0.5
Irrigation and Flood Control	145.36	10.4
Power	292.22	20.9
Industrial & Minerals	72.70	5.2
Transport and Communication	155.70	11.1
Scientific Services	2.00	0.1
Social & Community Services	417.20	29.8
Economic Services	2.00	0.1
General Services	17.75	1.3
Total	1400.00	100.00

infrastructure for grading, packing, cold storage etc. shall be built up by the State, the existing subsidy on fungicides is proposed to be withdrawn gradually by the end of the 7th Plan.

— The existing programmes in the Animal/Sheep Husbandry sector shall be continued with vigour so as to transform this sector eventually into a resource base for the State.

— Exploitation of forests which constitutes an important source of revenue for the State shall be regulated in a manner which does not disturb the existing environment and ecology of the State. Inspite of expected shortfall in resources, the target for the forest cut has been reduced by about 25% for the 7th Five Year Plan. Simultaneously, various afforestation programmes which are in the execution stage shall be continued.

— The Social Forestry Project which is expected to be completed by the end of 1986-87 shall be followed by a second phase of National Social Forestry (Umbrella Projects) and will last for another three years co-terminus with 7th Five Year Plan.

— The poverty alleviation programmes shall continue to be implemented as per national priorities. In fact in view of the excellent performance of the NREP scheme in construction of rural works and provision of employment in rural areas, the State share for this scheme has been increased by Rs. 4.5 crore for the 7th Five Year Plan.

— In the irrigation sector all the on-going schemes in medium sector have been fully provided so as to complete these by the end of 7th Five Year Plan. Some of these schemes were taken up in the 5th Plan period but limped on for want of resources. Potential of over fifty thousand hectares shall be added by the end of the 7th Five Year Plan period.

— Power sector has been accorded a priority in view of vast hydel potential available in the State. Three Hydel Projects accounting for an installed capacity of 75MW shall be completed during the 7th Plan period. In addition, work on some new projects shall also be started. It is also proposed to instal two Diesel Stations of 20MW capacity each in Srinagar and Jammu cities. In all the hydel capacity shall increase by 122.75 MWs. Besides, the State will be entitled to 80 MWs as its share of the first phase of Salal Hydel Project in the Central sector, which is scheduled to be completed during this plan.

— Under the Rural Electrification programme cent per cent electrification of the villages shall be achieved by the end of the 7th Five Year Plan, except for 50 villages in Doda district.

— In the industries sector emphasis will be put on the village and small scale sector which accounts for a major portion of employment in industries. Handicrafts and Handlooms are the traditional industries in the small scale sector and various measures to boost the production and provide necessary infrastructure to the artisans have been proposed for the 7th Plan programme in this sector.

— Sericulture development is also being given a priority attention for the 7th Plan period so as to make this industry attractive for rural peasantry.

— In the medium and large sector, infrastructure facilities in the industrial estates set up in the State shall be completed during the 7th Plan period. Investment in public enterprises shall be selective and only such of the ventures shall ordinarily be taken up which do not have enough attraction for the private sector or have larger social benefits.

— In the road sector, a total mileage of 802 kilometres shall be added during the 7th plan period.

— A large section of the State's population is dependent on the tourism for their livelihood. This sector, has, therefore, received adequate attention in the matter of allocations. However, it is proposed to discourage the construction of hotels, other commercial facilities in the Government or public sector which investment will be left to the private sector. Necessary infrastructure for opening of new tourist spots in the State and upgrading the facilities in the existing Tourist Centres is the main programme of tourism development in the State sector.

— In the educational field, the existing facilities shall be consolidated by providing laboratory equipment, school and college buildings and other necessary facilities. Expansion of schools and colleges shall be limited to situations before it is really necessary. A model school will be established in each tehsil, to bring equality education within the reach of meritorious students of all sections of the society.

— Under the programme of universalisation of elementary education, the students in the age group of 6-11 shall be fully covered during the Seventh Plan period.

— In the health sector, a marginal reversal of strategy as compared to the 6th Plan period is being effected in that stress is being paid to provision of rural health care than establishment of Medical Institutions which was the main emphasis during 6th Plan period. The development of Medical education shall be limited only to provide necessary back up to the rural health care and specialist services in the outlying districts.

— In the water supply sector 92 of the inhabited villages shall be covered under the rural water supply programme besides two Master Plans for Srinagar and Jammu cities shall also be completed within the plan period.

— In the housing and urban development sector, the main programme envisages construction of 25,000 dwelling units for rural landless add houseless families for the 7th Plan period. Each dwelling unit is likely to cost Rs. 6,000 out of which 50% of the funds are expected to be provided by HUDCO.

Sub-Plans

In view of the extreme backwardness of Ladakh region consisting of two districts of Leh and Kargil a separate sub-plan for its development has been prepared with a total allocation of Rs. 88.48 crore for the 7th Plan period resulting in the highest per capita plan outlay in the State. Main programmes of development include completion of hydel stations, irrigation canals and provision of roads, to far-flung areas within the districts and educational and health facilities.

Gujjar and Bakerwals are the nomadic tribe in the State within estimated population of 4.79 lakhs as of 1981. A separate sub-plan has also been prepared for their upliftment include provision of educational facilities, scholarships, uniforms, and house-sites which are the primary needs of the community to bring them at par with other sections of the society.

For the special component plan, unfolding programmes of economic development for scheduled castes, a total provision of Rs. 47.84 crore has been made for the Seventh Five Year Plan. The implementation of the schemes for benefit of scheduled castes though undertaken in the respective sectors of

development shall be exclusively monitored in the Social Welfare Department of the State. Implementation of the programmes in the sub-plan is taken up as per national guidelines on the subject.

Minimum Need Programme

The approved Seventh Plan outlay envisages an allocation of Rs. 217.775 crore for the minimum needs programme. Sectoral details are contained in Statement No. 1 while physical targets have been included in Statement No. 2.

STATEMENT NO. 1

Approved Outlay—7th Plan of Jammu and Kashmir State

(Rs. in lakh)

Head of Development/Sector	7th Plan		MNP
	Approved outlay	Capital component	component of the approved outlay
1	2	3	4
I. Agriculture & Allied Services			
1. Research & Education	1450.00	588.00	—
2. Crop Husbandry	4730.00	727.82	—
3. Soil & Water Conservation	1250.00	20.00	—
4. Animal/Sheep Husbandry	2500.00	648.91	—
5. Dairy Development	371.00	263.18	—
6. Fisheries	450.00	321.00	—
7. Forestry & Wild life Preservation	3392.00	190.00	—
8. Investment in Agriculture Credit	32.00	—	—

1	2	3	4
9. Marketing	400.00	208.62	—
10. Storage & Warehousing	400.00	85.10	—
Total—Agriculture & Allied Services	14975.00	3052.63	—
II. Rural Development			
1. I.R.D.P.	1125.00	54.75	—
2. N.R.E.P.	1300.00	1270.00	—
3. D.P.A.P.	487.00	113.75	—
4. C.D. & Panchayats	900.00	685.54	—
5. Land Reforms	500.00	—	—
6. Development of backward areas including Hill areas	9590.00	6644.14	—
Total—Rural Development	13902.00	8768.18	—
III. Cooperation	650.00	62.00	—
IV. Irrigation & Flood Control			
1. Major & Medium Irrigation	7286.00	7036.00	—
2. Minor Irrigation	4700.00	4700.00	—
3. Command Area Development	550.00	44.80	—
4. Flood Control	2000.00	2000.00	—
Total—Irrigation and Flood Control	14536.00	13780.00	—
V. Power			
1. Power Development (Survey & Investigation)	600.00	—	—
2. Power Projects (Generation)	14800.00	14030.00	—
3. Transmission and Distribution	10322.00	9432.00	—

1	2	3	4
4. General (including Rural Development)	3350.00	3350.00	312.50
5. New sources of energy including Biogas and I.R.E.P.	150.00	90.00	—
Total – Power	29222.00	26902.00	312.50
VI. Industry & Minerals			
1. Village & Small Scale Industry	3600.00	1090.00	—
2. Large & Medium Industries	3300.00	3139.00	—
3. Mining	350.00	121.00	—
Total—Industry & Minerals	7250.00	4350.00	—
VII. Transport & Communication			
1. Roads and Bridges	8450.00	5880.00	2330.00
2. Road Transport	1972.00	1972.00	—
3. State Motor Garages	248.00	178.00	—
4. Inland Water Transport	2350.00	2245.00	—
5. Tourism	2250.00	1472.00	—
6. Parks and Gardens	300.00	117.50	—
Total—Transport & Communication	15570.00	11865.50	2330.00
VIII. Scientific Services & Research			
1. Science & Technology	100.00	6.00	—
2. Environmental improvement (including water pollution control)	100.00	15.65	—
Total—Scientific Services & Research	200.00	21.65	—
IX. Social and Community Services			
1. General Education	7562.00	1043.37	4013.00

1	2	3	4
2. Art and Culture	200.00	68.00	—
3. Technical Education	500.00	102.00	—
4. Health	3866.00	646.63	2483.95
5. Medical Education	2440.00	1133.24	11.33
6. Water Supply	17230.00	13777.50	11471.75
7. Housing	1900.00	1900.00	400.00
8. Police Housing	1000.00	989.00	—
9. Urban Development	4007.00	3882.00	—
10. Information & Publicity	203.00	49.37	—
11. Labour & Labour Welfare	44.00	8.17	—
12. I.T.I.	256.00	63.00	—
13. Employment	900.00	112.00	—
14. Welfare of Scheduled Castes/ Scheduled Tribes/Other Backward Classes	594.00	19.00	—
15. Social Welfare	263.00	14.50	—
16. Nutrition	755.00	—	755.00
Total – Social & Community Services	41720.00	24104.74	19135.00
X. Economic Services			
1. Secretariat Economic Service	100.00	0.50	—
2. Institute of Management and Public Administration	75.00	8.00	—
3. Weights & Measures	25.00	—	—
Total—Economic Services	200.00	8.50	—
XI. General Services			
1. Stationery & Printing	160.00	97.75	—
2. Public Works	1615.00	1615.00	—
Total—General Services	1775.00	1712.75	—
GRAND TOTAL (I-XI)	140000.00	94628.67	21777.53

STATEMENT NO. 2

Seventh Five Year Plan 1985-90 of the State of Jammu & Kashmir

(Selected Physical Targets)

Item	Unit	Sixth Plan targets		7th Plan (1985-90)
		Targets	Achievements	
1	2	3	4	5
Agriculture and Allied Services				
Agriculture				
Production of Food grains				
(i) Rice	'000 tonnes	750.00	601.00	684.00
(ii) Wheat	,,	380.00	212.00	256.00
(iii) Maize	,,	450.00	368.54	61.00
(iv) Other Cereals	,,	75.00	38.00	36.00
(v) Pulses	,,	75.00	31.50	42.00
Total—Food grains	,,	1730.00	1251.04	1635.00
Commercial Crops				
Total Oilseeds	,,	NF	45.10	84.00
Sugar cane (cane)	,,	NF	2.3 (1983-84 only)	
Chemical Fertilizers				
(i) Nitrogenous (N)	,,	38.00	22.21	47.00
(ii) Phosphatic (P)	,,	9.00	5.17	14.00
(iii) Potassic (K)	,,	3.00	1.30	6.00
Total—(NPK)	,,	50.00	28.77	67.00

1	2	3	4	5
Animal Husbandry				
(i) Milk	,,	340.00	352.54	492.50
(ii) Eggs	M. Nos.	245.00	215.00	285.00
(iii) Wool	Lakh Kgs	21.00	24.14	27.81
Forestry				
(i) Social Forestry	Hectares	15150	17693	72850
(ii) Economic & Commercial Plantation	,,	5600	NA	4040
I.R.D.P.				
(i) Beneficiaries identified	Nos.	4.57	4.57	On the basis of survey conducted during 1983.
(ii) Beneficiaries assisted	,,	339000	166450	147340
Minor Irrigation (Potential)	Hect.	170.78	171.78	198.78
Major & Medium Irrigation				
(i) Potential	,,	155.35	150.14	174.40
(ii) Utilisation	,,	131.50	117.45	150.16
Power installed capacity	M.W.	218.62	208.62	331.37
Road Transport				
Total Roads				
(a) Surfaced	Kms.	6541.35	7094.70	8130.55
(b) Unsurfaced	,,	1831.00	2486.00	2636.55
Total	,,	8372.35	9580.70	10767.10

1	2	3	4	5
Education				
Class I—V (age group 6-10)				
Boys	'000	463	446	492
Girls	,,	300	277	548
Total	,,	763	723	1040
Percentage of age group				
Boys	%age	130	125	130
Girls	,,	77	71	130
Total	,,	102	97	130
Adult Education				
(i) No. of participants (age group 15-35)	Nos.	575	319	769
(ii) No. of centres opened under :				
(a) Central Programme	,,	5575	1555	3355
(b) State Programme	,,	NF	1925	2225
Health and Family Welfare				
Health Centres				
(a) Sub Centres	Nos. (Cum.)	510	588	NA
(b) Primary Health Centres	,,	94	92	136

1	2	3	4	5
(c) Subsidy Health Centres (New PHC)	Nos. (Cum.)	78	33	33
(d) Community Health Centre	,,	13	14	28
Rural Water Supply (MNP)				
Villages Covered	,,	2678	3760	5990

NF — Not fixed.
NA — Not available.

23

Social Services

Water Supply

Provision for adequate potable water supply both for rural and urban people is a basic necessity, which unfortunately could not be made available to the whole population so far. The situation in rural areas particularly is not very satisfactory. In the rural areas women have to still tread for miles together to fetch the day's water requirement. Unfortunately the problem of lack of water supply is not confined to these villages only. There are a larger number of other villages where presently reliable and adequate water supply does not exist.

The availability of protected water supply not only fulfils the basic requirement of people but it also protects them from water borne diseases which claim heavy toll in the country. The problem is really gigantic and on top of it constraints of financial resources pose a formidable obstacle in the way. Despite all these limitations Government is determined to ensure that every household in the difficult and problem villages has an adequate protected water within an easy distance of 1.6 kilometres during the next few years.

Till maturity of the long term proposals, for city of Srinagar are carried to completion the Department has installed tubewells in different areas of Srinagar, viz., Batamalloo, Shivpora, Balgarden, Gandhi Park, Guzerbal, Hazratbal,

Islamia College, Soura, Botakadal and Chattabal. During the last two years these tubewells have been quite helpful in providing immediate relief to the shortage pockets of Srinagar city. A few more tubewells are expected to be installed during 1979-80.

Similarly, interim relief has been provided to the chronic shortage areas in the city of Jammu by :

(a) laying of shunt lines;
(b) chemical impregnation of leaky reservoirs;
(c) replacement of age old pumps;
(d) interconnecting booster pipelines with various reservoirs to provide water by gravity instead of boosting; and
(e) interconnection of tubewells.

Improvement and augmentation schemes for the Urban growth centres of Anantnag and Udhampur were commissioned.

Rural Water Supply

Supply of protected drinking water to the people has been accepted as one of the basic minimum needs. In the State of Jammu and Kashmir excluding Ladakh district there are 6,583 villages with a population of 38.16 lakhs according to 1971 census. In Kashmir region the past several years of drought have shown that even the few villages located near springs and rivulets and previously supposed to be having some drinking water facilities, had to face serious difficulties due to depletion of discharge in the springs, and the drying up of the rivulets. Water had to be carried to a number of such villages by trucks and tankers from different sources. Taking the quality of water into account there is hardly a village that can be classified as advantageous, as water wherever available within 2 kilometres distance or a lift of 50 ft. is generally unhygienic and not absolutely safe for drinking purposes.

In the Jammu region the Kandi belt located between the

altitudes of 1000 ft. and 2600 ft. above MSL is dry, generally rugged and broken and intersected by nallahs which go dry for the most of the year excepting in rainy season when they become torrential. This perhaps is the worst hit area in this region in respect of drinking water facility. The main sources of drinking water in this area are the local ponds which get filled up with rain water during the monsoons. During the hot summer days, therefore, people have to foot miles to fetch water.

Health

The prosperity of a country depends to a great extent on the efficiency of its working force. The general situation of health of people, therefore, is of primary importance. It is for this purpose and for enabling people to have a healthy life that expansion of health cover is listed as one of the minimum programmes of development. Our endeavour has been the control and eradication of communicable diseases and to provide curative and preventive health services through a network of hospitals, primary health centres, sub-centres and dispensaries especially in the rural areas. This is being done by the expansion of medical facilities and increase in the number of hospitals. The number which was 35 during 1973-74 has increased to 45 in 1982-83 with 10 having been established within the past 9 years making an average addition of one per year. The Institute of Medical Sciences costing Rs. 35.77 crore, the Bone and Joint Surgery Hospital at Srinagar and the Lal Ded Hospital for women in Srinagar are some of the most important additions to our list of institutions. The other important institutions are primary health centres, allopathic, dispensaries, ayurvedic and other dispensaries and mobile medical units. The number of sub-units and medical aid centres has gone up from 188 and 107 to 408 and 194 respectively. There are nearly 300 other institutions such as S.T.D./V.D. clinics, T.B. Centres, F.P. Centres/sub-centres, Leprosy centres/units, Trichoma and Amchi centres/units. The average population dependent per institution has, as a result, come down from 0.04 lakh in 1973-74 to 0.03 lakh in 1982-83.

Almost all the old districts have got 100 bed hospitals. The hospitals stand provided with all types of facilities and amenities including services of specialists in all important discipline. Sub-district hospitals stand established at Sopore, Tangmarg, Dooru, Shopian, Kangan, Kishtwar, Billawar, Nowshera and Tangdar. These institutions provide referral services for each four primary health centres and are equipped with specialists in disciplines of medicine, surgery, gynae and anaesthesia.

Another indicator of progress in health service is the bed strength available in hospitals and dispensaries. The total bed strength in government hospitals and dispensaries has shown considerable increase from 4939 in 1973-74 to 6153 in 1982-83 and the bed population ratio is 1022. Again, the number of doctors has gone up from 1177 in 1973-74 to 2230 in 1982-83. There are also 447 vaids and hakims. The doctor/hakim/vaid population ratio has come down from 3001 to 2350 during the same period. The number of other medical personnel has also shown great increase with the number of nurses having gone up from 433 to 952, of the basic health workers from 420 to 600 and of auxiliary nurses/daies/midwives from 788 to 1218. There are 164 lady health visitors against none previously. The growth in the field of Health is as shown in Table 23.1.

TABLE 23.1

Growth of health

Year	No. of Medical Institutions	Bed strength	Medical personnel	Patients treated (in lakhs)
1	2	3	4	5
1980-81	1816	5422	6002	81.12
1981-82	1885	5487	6543	89.76
1982-83	1948	6153	7009	79.52
1983-84	2151	6460	7258	87.75

The impact of better preventive and curative facilities is evident from the death rate of the State. The crude death rate as thrown out by the sample registration scheme given below indicates a comparatively comfortable condition in the State compared to the all India level.

Rehbar-i-Sehat

This scheme was prepared by the State Government in the year 1976. This is a plan scheme under which a school teacher—Males and Females—receive training as paraprofessional functionaries. The teachers educate the community on the following topics for which they are paid an allowance of Rs. 50 per month for this extra job T.A. and D.A are being met by the Education Department :

1. Personal Hygiene.
2. Nutrition.
3. Family Welfare.
4. Environmental Sanitation.
5. Control of Communicable diseases.
6. Care of mother and children.
7. Prevention of accidents.
8. Use of available Health Services.

This scheme for the first time has been introduced in two blocks viz. Kotbalwal in Jammu and Ganderbal in Kashmir. As many as 237 teachers have received training as Rehbar-i-Sehat. They perform the following duties as Rehbar-i-Sehat-School teachers.

1. Render general health education to the public about common health problems.
2. Refer various cases to the appropriate Health Institutions.
3. Assist and help in National Health Programmes.
4. Develop School Health Programme.

5. Participation in village Health working Group.
6. Supervision of births and deaths to be recorded by Village Panchayat Secretary.
7. Render Preliminary first-aid as well as curative treatment of common illnesses.

Teachers, working under the Rehbar-i-Sehat programme should do this type of health work for all practical purposes only after duty-hours in the School, so that education is not affected adversely. The teacher will work in close cooperation with Multipurpose workers, Auxiliary Nurse Midwife, who will take the help of village teachers and work together for health education of the public.

In order to perform this function, they have also been provided with small kit bags containing common medicines which any prudent householder maintains at home and which can assist in relief of minor ailments, till the case is referred to the nearest available Health Unit. Medicines of the bag are replenished regularly by the Health Department. The choice of school teachers as Rehbar-i-Sehat is but natural as they are the most educated people at village level, besides being respected by the people there. This scheme has evoked both national and international interest and all the concerned are doing their best to make it a success.

In view of the satisfactory response from the people as well as teachers, Rehbar-i-Sehat programme has been extended further to other blocks.

Family Welfare Programme

The Government of India adopted a national Family Planning Programme in the year 1952. The State of Jammu and Kashmir took up this National Programme with the creation of two small centres in the main hospitals of Jammu and Srinagar cities during the year 1957-58. This was slowly followed by opening of 15 rural family welfare planning centres in the rural areas of the State in 1964. With this meagre start, a small cell, headed by an Assistant Surgeon, was

created in the Directorate of Health Services to assist the Director Health Services for the family planning work. With this set up, the programme as a whole, could not gain the tempo and as such in view of the vital importance of this programme, the whole scheme was reorganised and State Family Planning Bureau was created in the year 1964-65 and attached to the Directorate of Health Services.

In the country, other States had gone much ahead with the establishment of District Bureau, Training Centres, Block Centres and Sub-Centres. In order to reach more effectively to the rural population of the State, the programme was further expanded and the infrastructure was raised according to the guideline of the Government of India. The Regional Family Planning Training Centre was established in 1967. Further expansion was made from time to time. The following is the organisational set up in the State :

1.	State Family Planning Bureau	1
2.	Regional Family Planning Training Centre	1
3.	Post Mortem Centres	2
4.	District Bureaux	8
5.	Urban Family Welfare Planning Centres	14
6.	Rural Family Welfare Planning Centres	77
7.	Family Welfare Planning Sub-Centres	85

A Cafeteria of service is offered to the eligible couples (wife's age 15-44 years) at all the centres of the State free of charge.

Conventional contraceptives are advocated for newly married couples, intra-uterin device (loop) for those having one or two children and want spacing for subsequent births and sterilisation for those couples who already have two or more children and do not desire to have more children.

The national objective of the Family Planning Programme is to have a birth rate of 30 per thousand population by the end of 1978-79 and 25 per thousand population by the end of 1983-84.

Performance of the Family Welfare Programme

From its very inception the Family Welfare Programme has been absolutely voluntary in this State. The Chief Minister has been laying great stress on integration of all the services and their easy availability as near as possible to the needy population. He has repeatedly stressed the need for individual education and motivation in this regard.

New strategy has been evolved for the current year in which emphasis is being laid on field-based activities. Besides, more and more orientation camps are being held at the Sub-Centre level, in which opinion of the leaders are being educated about the Family Welfare Programme.

The Department contemplates to introduce some new innovations, in order to popularise the programme of family welfare more effectively in the State. In this connection mention may be made of the proposal of issuing VIP cards to Family Welfare acceptors so that they may get priority in every health agency in the State. Besides, a fiim in the local language is being prepared on the Family Welfare Programme in the State keeping in view the local conditions.

Also stress has been laid this year on involvement of various development departments and voluntary organisations to popularise the programme throughout the length and breadth of the State. Incentive money has also been sanctioned in favour of acceptors for sterilisation.

Housing

One of the main objective of our development planning is to help the houseless to acquire housing accommodation especially the weaker sections of the society and the landless in the rural areas. The Government has accordingly been given great attention to this aspect of the development. Previously, the work was looked after by the Public Works Department. In 1973, a separate Department of Urban Development and Housing was set up. The tempo of development, however, caught up since Fifth Plan only.

According to the Census of 1971 there were 6.67 lakh

occupied residential houses for a total of 7.63 lakh households in our State leaving about 0.96 lakh households houseless or in shared accommodation.

According to an estimate the total requirement of additional housing accommodation during the Sixth Plan has been assessed as under :

(a) Requirement of additional dwelling units due to increase in population and reduction in household size (for five years) = 1.11 lakh units.
(b) Replacement demand = 2.02 lakh units.
(c) Total requirement = 3.13 lakh units.

It would not be practicable to meet the entire demand from Government resources. Attempts are, however, being made to meet a substantial percentage of it.

A number of schemes are being implemented to achieve this end. These schemes envisage allotment of housing sites and provision of financial assistance to the houseless/landless for construction of housing accommodation.

Our housing development includes a programme for providing of house sites to the rural houseless/landless and to assist them to raise huts/tenements on the same.

Another scheme is the integrated housing scheme for industrial employees, housing board and cooperatives of industrial workers of economically weaker sections of the society run on co-tenancy basis. The scheme has become popular and more employees are coming to embrace the same.

Under the low income group housing scheme, advances for construction of houses are made to Government employees as well as to the private individuals.

The middle income group scheme was incepted in 1959-60. Under this scheme too, loans are advanced for construction of houses. The scheme, however, covers people with higher income. Maximum demand for loans comes from this category.

Since under the present market conditions alone loans do not suffice for the construction of houses, house building advance is given to Government employees in order to supplement the housing loan advanced to them. The amount spent on the three schemes during the last six years is as under :

Low Income Group	130.31 lakh
Middle Income Group	224.68 lakh
House Building Advance	189.65 lakh

A scheme of rental housing for Government employees was initiated in the Fifth Five Year Plan. It covers mainly the darbar move requirements as Srinagar and Jammu which is estimated at 2,050 units with a cost of Rs. 14 crore.

The Govenment have taken up the construction of a number of fresh schemes. Under these schemes the following housing colonies are under development :

TABLE 23.2

New housing colonies

Sl. No.	Name of the Colony	No. of plots
1.	Bagi-Mehtab (Srinagar)	370
2.	Kadi-pora (Anantnag)	1363
3.	Kanli Bagh (Baramulla)	329
4.	Udhampur	368
5.	Pampore (Kashmir)	190
6.	Sangeen Darwaza (Fort Area, Srinagar)	144
7.	Chani Himmat (Jammu)	1600
8.	Roop Nagar (Jammu)	1800

Education

Education has always been accorded an honoured place in Indian society. The great leaders of the Indian freedom move-

ment realised the fundamental role of education and throughout the nation's struggle for independence, stressed its unique significance for national development. Gandhiji formulated the scheme of basic education seeking to harmonize intellectual and manual work. This was a great step forward in making education directly relevant to the life of the people. Many other national leaders likewise made important contributions to national education before independence.

In the post-independence period, a major concern of the Government of India and of the States has been to give increasing attention to education as a factor vital to national progress and security. Problems of educational reconstruction were reviewed by several commissions and committees, notably the University Education Commission (1948-49) and the Secondary Education Commission (1952-53). Some steps to implement the recommendations of these Commissions were taken; and with the passing of the Resolution on Scientific Policy under the leadership of Jawaharlal Nehru, the development of science, technology and scientific research received special emphasis. Towards the end of the Third Five Year Plan, a need was felt to hold comprehensive review of the educational system with a view to initiating a fresh and more determined effort at educational reconstruction; and the Education Commission (1964-66) was appointed to advise Government on :

> "the national pattern of education and on the general principles and policies for the development of education at all stages and in all aspects".

The report of the Education Commission has since been widely discussed and commented upon. Government is happy to note that a general consensus on the national policy on education has emerged in the course of these discussions.

The Government of India is convinced that a radical reconstruction of education on the broadlines recommended by the Education Commission is essential for economic and cultural development of the country, for national integration and for realising the ideal of socialistic pattern of society. This will involve a transformation of the system to relate it more

closely to the life of the people; a continuous effort to expand educational opportunity; a sustained and intensive effort to raise the quality of education at all stages; an emphasis on the development of science and technology and the cultivation of moral and social values. The educational system must produce young men and women of character and ability committed to national service and development. Only then will eductation be able to play its vital role in promoting national progress, creating a sense of common citizenship and culture, and strengthening national integration. This is necessary if the country is to attain its rightful place in the comity of nations in conformity with its great cultural heritage and its unique potentialities.

But if we turn the pages of history we find that during Dogra Rule, Jammu schools were established upto matric standard in the earlier years of 19th century. In 1883, the Jammu School now designated as College had 400 students on roll. Maharaja Partap Singh established the school on the pattern of the Punjab University, the first of its type was the Ranbir High School. In 1890 there were ten schools. By 1911 the number rose to 379 and by 1921 the number was 1175 when the total roll was 32,971. In 1908 Prince of Wales College, Jammu opened, while a college was already working in Kashmir. Since 1905, this College was later on taken over by the Government and renamed as Sri Partap College. The aim of Maharaja Hari Singh was to make the State educationally advanced. Later on special attention was paid by the Government on this aspect. The details show the number of Educational institutions and students on roll from the year 1950-51 to 1983-84 is given in Table 23.3.

In our State two Sainik Schools have been set up, one is the Sainik School at Nagrota and the other has been set up in Kashmir at Manasbal. In these schools physical and mental development of students on proper lines is the first prerequisite of education.

The University education has also expanded considerably. The adult education is an important programme in our educational activity.

TABLE 23.3

Number of institutions/students on roll

(Nos. in lakh)

Year	Primary Schools		Middle Schools		High/Higher Secondary Schools		Colleges	
	No.	Students	No.	Students	No.	Students	No.	Students
1950-51	1115	0.64	139	0.19	55	0.21	14	0.02
1960-71	2859	1.48	533	0.65	250	0.91	28	0.10
1980-81	7406	2.68	2046	2.57	813	2.73	42	0.20
1981-82	7525	2.92	2106	2.87	868	2.87	43	0.22
1982-83	7585	3.11	2089	2.98	906	2.97	43	0.23
1983-84	7630	3.18	2102	3.21	909	3.13	43	0.25

Source : Education Department, Government of Jammu and Kashmir.

Medical Education

Medical College, Jammu

The Government Medical College, Jammu, came into existence in the year 1971, when first batch of students of this College was admitted in the Medical College, Srinagar, as guest students. The Medical College, Jammu, actually started functioning in May, 1972. However, it was only after 1975 that the College expanded its activities.

An inspection of the standard of MBBS Examination and the teaching facilities in the College was carried out by the Inspectors of the Medical Council of India in April-May, 1976, for recognition of MBBS degree of this College and its inclusion in the First Schedule of the MCI Act, 1956. As per the report of the Inspectors of the MCI, the work done in the Medical College and its attached hospitals within a short period was really exemplary. Hardly any other Medical College in the country has been recommended for recognition by the Inspectors of MCI within such a short period.

Government Medical College, Srinagar

The Medical College has so far imparted education to 1940 students who have come out as full-fledged medical graduates.

Subsequently, Post-graduate classes were started in this College for the inservice candidates but from 1975, regular post-graduate classes were started and the Medical graduates of the State are being given admission to these classes treating them on deputation and they receive their full salary during their period of two years of training. The in-take and out-turn in Medical Colleges (MBBS) is given in Table 23.4.

Institute of Medical Sciences

The Institute of Medical Science is being developed at Soura in Srinagar, where scientists from various disciplines of medicine and allied sciences would have an opportunity to work within an intellectual and congenial milieu to realise their

TABLE 23.4

In-take and out-turn in medical colleges

Year	No. of Institutions	Actual In-take	Out-turn
1965-66	1	100	80
1974-75	2	278	97
1980-81	2	208	187
1983-84	2	157	137

Source : Digest of Statistics, 1983-84.

creative ability and to find out solutions to the problems of human sufferings, with an objective of providing facilities for specialised medical education and clinical research. The Institute forms a part of the State Health Plan under the Department of Health and Medical Education. A financial approved outlay covering for construction, housing and development has been estimated at Rs. 2440.00 lakh for the 7th Five Year Plan.

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